Economics and Sociology
Occasional Paper No. 1735

ON THE VIABILITY OF AGRICULTURAL DEVELOPMENT BANKS: THE CASE OF THE BANCO NACIONAL DE COSTA RICA

by

Claudio Gonzalez-Vega

May, 1990

Agricultural Finance Program
Department of Agricultural Economics
and
Rural Sociology
The Ohio State University
2120 Fyffe Road
Columbus, Ohio 43210-1099

Abstract

TABLE OF CONTENTS

ON THE VIABILITY OF AGRICULTURAL DEVELOPMENT BANKS: THE CASE OF THE BANCO NACIONAL DE COSTA RICA[1]

Claudio Gonzalez-Vega[2]

I. Introduction

During the past three decades, the Inter-American Development Bank (IDB) has granted the Banco Nacional de Costa Rica (BNCR) seven loans, in order to fund small and medium farmer credit programs at this bank. These efforts have attempted to support the expansion and diversification of agricultural production in Costa Rica, in particular through improvements in farm productivity. The early emphasis on livestock credit has slowly declined, as crops and, more recently, the new non-traditional export activities have increased their share of the funds disbursed.

The amount of each new loan has increased through time, to accumulate a total of US$ 84.6 million for the seven projects. These projects have reflected an increasing commitment by the IDB of resources for agricultural development in Costa Rica and have

---

[1] This paper was prepared for the Office of External Review and Evaluation (ORE) of the Inter-American Development Bank (IDB), as background material for the Study of the IDB's Experience with Institutional Strengthening Assistance, under the direction of Francisco Guzmán. The author is responsible for the views expressed here, which may or may not be shared by the sponsoring institution.

[2] Professor of Agricultural Economics and of Economics at the Ohio State University. Previously, Dean of the Faculty of Economic Sciences at the University of Costa Rica. The assistance of Ronulfo Jimenez and Martha Castillo, from Academia de Centroamerica in San Jose, is ackowledged. The author is grateful for the enthusiastic collaboration of Bernardo Chaverri and all other officials at the Banco Nacional de Costa Rica and for comments on this paper by Francisco Guzman.

complemented other non-credit IDB programs for the sector. The year, purpose, and total amount of the corresponding operations are shown in Table 1.01.

Table 1.01 Agricultural Credit Operations of the Inter-American Development Bank with the Banco Nacional de Costa Rica, 1961-1989.

Year	Purpose	Amount
1961	Livestock development	US$ 3.0 million
1963	Agricultural cooperatives	1.0 million
1965	Land reclamation, Irazu volcano	5.2 million
1966	Livestock development	0.4 million
1972	Livestock development	6.0 million
1977	Agriculture, livestock development	10.0 million
1981	Agriculture, livestock development	24.0 million
1985	Agriculture, livestock development	35.0 million
	Total	US$ 84.6 million

The more recent of these agricultural credit programs have included the "strengthening of the farm development banking system of Costa Rica" among their stated objectives. No formal evaluation of accomplishments in this respect has been undertaken.

The purpose of this paper is to explore the viability of the Banco Nacional de Costa Rica as a financial intermediary as well as the impact of these IDB programs on the bank's increasing search for viability. This examination of the determinants of the bank's viability is based on a conceptual framework developed elsewhere, to the extent applicable to this particular case.[3]

[3] Claudio Gonzalez-Vega, "On the Viability of Agricultural Development Banks: Conceptual Framework," unpublished Report for the Inter-American Development Bank. Columbus, Ohio: Department of Agricultural Economics and Rural Sociology, The Ohio State University, April, 1990; and Claudio Gonzalez-Vega, "Evaluating the Viability of

II. The Costa Rican Financial Sector:

The Costa Rican formal financial sector consists of the National Banking System, several public and private non-bank financial institutions, and the National Securities Exchange (Bolsa Nacional de Valores).

The National Banking System (NBS) consists, in turn, of the Costa Rican Central Bank, four state-owned ("nationalized") banks, and 20 private commercial banks, two of which are cooperative banks (BANCOOP and Banco Federado).[4] The state-owned Banco Nacional de Costa Rica (BNCR), created in 1914, has been, by far, the largest bank in the System. With the recent expansion of private banking, however, its share of the market has been declining. The assets size of each bank is shown in Table 2.01.

Non-bank private financial intermediaries include about 50 regulated finance companies (financieras) registered with the Superintendent of Financial Institutions (Auditoría General de Entidades Financieras), seven savings and loan associations (mutuales), and over 80 credit unions, 54 of which are associated into a large federation (FEDECREDITO). Several non-financial cooperatives offer financial services, as well, most prominently those associated with FEDECOOP, a large coffee marketing federation.

Agricultural Development Banks: A Methodology," unpublished Report for the Inter-American Development Bank. Columbus, Ohio: Department of Agricultural Economics and Rural Sociology, The Ohio State University, April, 1990.

[4] As of February, 1990, one of these banks (Banco Internacional de Exportación) was being liquidated and another one (Banco Weeden Internacional) had been declared bankrupt (Publication of the Auditoría General de Entidades Financieras in La Nación, May 5, 1990).

Table 2.01 Costa Rica: Year of Creation and Assets of the Institutions in the Regulated Financial Sector, 1990. (Billion colones and percentages).

Bank	Year of Creation	Assets CR$ billion	Assets %
State-Owned Banks:		201.60	78.4
Nacional de Costa Rica	1914	97.00	37.7
de Costa Rica	1877	53.71	20.9
Anglo Costarricense	1863	31.58	12.3
Crédito Agrícola	1918	19.32	7.5
Other Public Banks:			
Hipotecario Vivienda	1987	18.55	7.2
Private Banks:		31.82	12.4
Interfin	1982	4.17	1.6
BANCOOP	1982	4.13	1.6
Banex	1981	3.93	1.5
de San José	1968	2.91	1.1
de Fomento Agrícola	1984	2.49	1.0
del Comercio	1979	2.23	0.9
Mercantil	1987	2.13	0.8
B.C.T.	1984	1.75	0.7
Internacional de C.R.	1987	1.56	0.6
Metropolitano	1985	1.46	0.6
Germano Centroamericano	1987	1.36	0.5
Continental	1984	1.10	0.5
Federado	1985	0.97	0.4
Cofisa	1986	0.77	0.3
Fincomer	1977	0.36	0.1
de la Construcción	1974	0.25	0.1
de la Industria	1985	0.15	.
Lyon	1947	0.09	.
Financieras (41)	1972-1989	5.21	2.0

Source: Auditoría General de Entidades Financieras, La Nación, May 5, 1990.

Other semi-formal and informal lenders include a wide range of agents, from input suppliers and rural traders, processors and exporters of agricultural products (e.g. coffee beneficios), and local grocery stores (pulperías), to private voluntary organizations (PVOs), non-regulated financieras, friends, relatives, and moneylenders.

There are several public sector entities that offer financial services, including the housing mortgage bank (Banco Nacional Hipotecario de la Vivienda, BANHVI), the national housing institute (Instituto Nacional de Vivienda y Urbanismo, INVU), the workers' savings bank (Banco Popular y de Desarrollo Comunal), the national insurance institute (Instituto Nacional de Seguros, INS), the social security system (Caja Costarricense de Seguro Social, CCSS), the Agrarian Fund (Caja Agraria) at the agrarian development institute (Instituto de Desarrollo Agrario, IDA), the cooperatives institute (INFOCOOP), and several others.

Created in 1950, the Central Bank has been in charge of the country's exchange rate, monetary, and credit policies, and of the coordination of the state-owned banks. It enjoys a monopoly in the conversion of foreign exchange into colones, with the state-owned and private banks acting as its agents for this purpose. Only the state-owned banks have been allowed to accept foreign currency deposits from the public, but they must surrender 100 percent of these deposits to the Central Bank. Since 1983, the Central Bank has set the bank exchange rate of the colón following a crawling-peg regime that attempts to keep the real exchange rate constant. During the past few years, the black-market exchange rate has diverged from the bank rate by no more than 10 percent.

The Central Bank is authorized to set interest rates and commissions on loans and deposits as well as reserve requirements on deposits in banks and private finance companies. It also sets the terms for rediscounting from the state-owned banks and it conducts open market operations, through sales and purchases of stabilization bonds. It is authorized to set limits on credit availability, through the monetary program. For a long time, the Central Bank regulated the volume and the composition of outstanding state-owned-bank loans, according to categories of economic activity, by setting portfolio limits known as topes de cartera.

The Central Bank authorizes the establishment of new banks and the operation of new bank branches by existing banks. It can extend credit to the state-owned banks, the Central Government, and some public-sector entitites. Since 1984 it can also extend credit to the private commercial banks, but only with funds obtained from foreign agencies and multilateral organizations. During the past five years, the Central Bank has substantially redefined its role and modified its style of policy management, as a dimension of a financial liberalization program, to be described below.

Prudential supervision of the formal financial system is in the hands of the Auditoría General de Entidades Financieras (AGEF), following the new 1988 Banking Law (Ley de Modernizaci6n del Sistema Financiero), with authority over the state-owned and private commercial banks and the private finance companies. It replaced the Auditoría General de Bancos, with a greater degree of autonomy from the Central Bank. Credit unions and other cooperatives are nominally supervised by the Instituto de Fomento Cooperativo (INFOCOOP).

The state-owned banks, three of which were "nationalized" in 1948 to act as commercial, mortgage, and development banks, are the Banco Nacional de Costa Rica, the Banco de Costa Rica, the Banco Anglo Costarricense, and the Banco Crédito Agrícola de Cartago.[5] These four state-owned banks have enjoyed a monopoly in the mobilization of demand and savings deposits from the public (in practice, deposits at less than 60 days) and only these four banks have had access to Central Bank rediscounting.

In the mid-1980s, the state-owned banks operated a network of 340 branches throughout the country. This made Costa Rica one of the Latin American countries with the lowest ratio of population per bank branch, third only after Uruguay and Trinidad and Tobago.[6] This network included over 100 of the Banco Nacional's small farmer outlets (Juntas Rurales de Crédito Agrícola).

The number of private commercial banks has doubled since 1982. After the 1948 "nationalization" decree, only the Banco Lyon had remained in operation, but it has never mobilized deposits from the public. Banco de San José, created in 1968, was the first one of the new generation of private commercial banks. Three more private banks were created in the 1970s, while all others did not appear until the 1980s, mostly in response to the

---

[5] Although the decree by the 1948 Junta describes it as a "nationalization," the three expropriated private banks were actually locally owned. The BNCR, on the other hand, had been a state bank since 1914.

[6] Federación Latinoamericana de Bancos, Guía Bancaria Latinoamericana, Bogotá: FELABAN, 1986.

desintermediation that accompanied the crisis in the early 1980s.[7] They are subject to the same Central Bank credit and interest rate policies as the state-owned banks.

The private commercial banks have funded their lending operations with term deposits of maturities of six months and over (certificados de inversión), their own capital resources, access to Central Bank lines of credit where the funds have been foreign, and loans from other foreign sources. Many of these banks own subsidiaries abroad ("las panameñas"), where deposits are mobilized and loans are granted to Costa Rican firms. Particularly important have been the lines of credit created at the Central Bank by the Agency for International Development (AID) in an effort to promote private banking in Costa Rica.

The private commercial banks have been concentrated in the urban areas and have lent primarily for industrial and commercial purposes, to a well-established clientele. They have recently accounted for over one-half of lending to the industrial sector. In the rural areas, however, they have not represented a competitive threat for the state-owned banks. Credit unions and some agricultural processors, particularly the coffee beneficios, have offered some competition to the state-owned banks in the countryside.

Regulated private finance companies increased from 41 at the end of 1982, to 66 by mid-1987, just before several of them experienced difficulties and some went bankrupt. At present, given the more strict criteria for their operation established in the 1988 Banking Law, there are 46 active empresas financieras no bancarias and 11 inactive finance

---

[7] Banco de la Construcción (1974), Banco Fincomer (1977), and Banco del Comercio (1979).

companies.[8] The operations of these intermediaries have been similar to those of the private commercial banks, but they have not had access to Central Bank credit lines at all. Their loanable funds have thus been limited to term deposits (certificados de inversión), their own capital resources, and foreign loans. They are subject to Central Bank reserve requirements, set by the 1988 Banking Law at a maximum of 10 percent, and to the Bank's interest rate regulations. There have also been non-regulated finance companies, defined as firms in which credit and other financial operations account for less than 50 percent of their overall activity. Regulated and non-regulated finance companies have held about three percent of the financial sector's assets.[9]

The private savings and loan associations (mutuales) have financed construction and home purchases by their members, with funds from savings raised among their associates and from term deposits, sales of mortgages in the secondary market (Bolsa), and loans from a state-owned bank with AID resources.

FEDECREDITO and the affiliated credit unions have aggressively mobilized both member shares and voluntary deposits from the public. Despite significant success in the 1980s, due to incorrect policy guidelines from the Federation, mismanagement, and in a few cases fraud, several credit unions have experienced severe financial difficulties since 1987 and many had to be bailed out in 1990.

---

[8] According to a list published by the Auditoría General de Entidades Financieras in La Nación, May 5, 1990.

[9] As estimated by an IDB Mission in 1986.

Non-financial cooperatives became important sources of financial services after the crisis in the early 1980s. These cooperatives, credit unions, and several PVOs working with microenterprise promotion programs have become important channels for foreign and multilateral agency funds in the 1980s.

The Banco Popular, not under the authority of the Central Bank, is run by a Board that includes representatives from the labor unions, the employers, and the government. Its lending operations have been funded mainly from a payroll tax paid both by workers and employers (forced savings) and from voluntary savings and term deposits mobilized from the public. This bank has been specialized in consumer loans and other forms of "development" lending. It has required several restructuring efforts, given major deficiencies in its management and institutional design.

The social security system (CCSS) extends credit for housing, funded by the workers' pension contributions (including the portions contributed by the employers and the government, in addition to the workers'), but a substantial amount of the pension reserves accumulated have been invested in Central Government bonds. The INS extends credit for housing, as well, funded by insurance reserves. The large teacher's savings association (ANDE) extends credit to members, funded with pension contributions.

The national housing mortgage bank (BANHVI) was created in late 1986, to finance long-term housing mortgages, mostly with resources transferred from the Central Government and the CCSS and from sales of mortgages in the secondary market. The lending operations of other public-sector entities, such as INVU, the institute for the development of local governments (IFAM), and INFOCOOP are mainly funded with Central Government fiscal transfers and foreign loans. Public sector financial entities hold substantial amounts of Central Government bonds and thus represent a source of financing for the fiscal deficit.

Until recently, CODESA, a public development corporation, was both a major user of Central Bank and foreign credit and a source of funds and guarantees for its subsidiaries and a few private sector firms. Unable to promote profitable activities, CODESA has been recently engaged in a process of privatization of its subsidiaries, with assistance from AID and the World Bank.

The National Securities Exchange (Bolsa), created in 1976, experienced significant growth in the 1980s, in part as a response to the acute bank desintermediation process that took place early in the decade. Total transactions increased from 4.8 billion colones in 1982 (about 5 percent of GDP), to 82.1 billion colones in 1986 (about 34 percent of GDP). Since annual transactions turnover was estimated at about 4.9 in 1986, the value of the assets negotiated was estimated at 16.8 billion colones.

The Bolsa does not actually function as an equity market of any importance. Rather, it is a market for trading debt instruments. Although transactions of private sector financial assets grew from about 8 percent of total transactions in 1982, to about 25 percent in 1986, public sector financial assets, notably Central Government bonds, Central Bank stabilization bonds, and certificates of deposit issued by the state-owned banks, explained about 69 percent of transactions growth in that period. The increased participation of Government bonds in transactions at the Bolsa reflected a policy shift in the financing of the Central Government deficit. Up to 1982, the fiscal deficit was largely financed with foreign loans and domestic credit from the Central Bank and the state-owned banks. Afterwards, as a result of macroeconomic stabilization programs, limits have been set on the amount of bank credit for the non-financial public sector. An increasing portion of the public sector deficit has thus been financed with sales of bonds to the private sector at the Bolsa.[10]

Important reasons for the insignificant trading in equity instruments may have been a tax regime that penalizes equity financing compared to debt financing and a strong saver preference for short-term instruments, as a consequence of uncertainty about macroeconomic conditions.[11] Savers have also shown a preference for holding Government and Central Bank bonds and certificates of deposit issued by the state-owned banks, which they judge to be free of default risk, rather than claims on private sector non-financial firms. In the presence of economies of scale, only large firms have afforded the direct placement of securities with the public. The Bolsa has become, on the other hand, an important mechanism for the mobilization of relatively low-cost, short-term funds for the private banks and other financial intermediaries, in the presence of the state-owned banks' monopoly on short-term deposit mobilization.

Despite the rapid growth of non-bank financial intermediaries and of transactions in private debt instruments at the Bolsa in recent times, loans from the National Banking System continue to be the most important source of financing for domestic firms in the

---

[10] This description of the Costa Rican financial system has followed closely the report by Minor Sagot, "Financial Intermediation in Costa Rica: Status and Prospects," San Jose: Unpublished document, USAID Mission, June, 1987.

[11] While corporate profits are subject to a progressive income tax scale and dividends to an additional tax, interest paid on liabilities can be deducted as an operating cost for tax purposes.

modern sector, both for investment and for working capital. Similarly, since monetary and quasi-monetary instruments continue to be the most important financial assets held in wealth portfolios, the legal monopoly of the state-owned banks' in the mobilization of deposits from the public explains much of their preeminence, despite the poor quality of many of the financial services that they have provided. Only recently has the quality of some of the services offered by the state-owned banks improved, as a response to the intense competition from the private commercial banks in some market segments. The private banks are headquartered in San Jose, however, with no branches in the countryside. In the rural areas, competition for the state-owned banks has had to come from credit unions and other semi-formal intermediaries, such as the coffee beneficios.

III. Financial Deepening in Costa Rica

During the 1950s, the 1960s, and most of the 1970s, Costa Rica experienced a significant process of financial deepening and its financial markets served as an important mechanism for economic growth. On the basis of traditional measures of financial performance, the evolution of the Costa Rican financial system during that period has to be evaluated positively, compared to financial performance in other developing countries. The range of the services offered widened, the network of bank branches was substantially expanded, the returns to domestic financial assets were positive, when measured in real terms, and all financial magnitudes, measured in constant prices, grew rapidly.

Table 3.01 Costa Rica: National Banking System. Money and Credit Aggregates. Average Annual Rates of Growth in Real Terms. (Percentages). 1950-1986.

	1950-62	1962-70	1970-78	1978-82	1982-86
Net Domestic Credit	10.2	5.5	11.1	-17.7	18.1
Net Public Sector	4.6	8.7	20.6	-7.7	22.8
Private Sector	11.3	5.1	8.8	-22.6	14.0
Other Net Domestic Assets	6.9	8.9	20.4	46.3	14.2
Total Liquidity (M2)[1]	8.8	7.6	13.8	-8.9	10.4
Quasimoney[1]	11.4	8.3	21.0	-5.6	8.9
Money (M1)	7.7	7.2	8.5	-13.6	12.8
Foreign Borrowing by Banks	n.a.	7.9	19.0	16.5	30.8

Source: Computed from data in Banco Central de Costa Rica, Credito y Cuentas Monetarias, several years. Amounts deflated by the Wholesale Price Index.

[1] Includes foreign-currency deposits.

Table 3.02 Costa Rica: National Banking System. Ratios of Money and Credit Aggregates to the GDP. (Percentages). 1950-1986.

	1950	1962	1970	1978	1982	1986
Net Domestic Credit	21.6	30.2	28.9	40.5	33.1	36.3
Net Public Sector	4.6	3.4	4.1	11.1	14.4	18.4
Private Sector	17.0	26.8	24.7	29.4	18.7	17.8
Total Liquidity (M2)[1]	18.4	21.8	24.4	41.6	51.0	42.6
Quasimoney[1]	4.4	7.0	8.3	22.9	32.4	25.7
Money (M1)	14.0	14.8	16.1	18.7	18.6	16.9

Source: Computed from data in Banco Central de Costa Rica, Credito y Cuentas Monetarias, several years.

[1] Includes foreign-currency deposits.

Rapid economic growth and price and exchange rate stability explained this progress. Up to the mid-1970s, Costa Rica was characterized by remarkable price stability. Between 1950 and 1969, the average annual rate of change of the Consumer Price Index was below two percent per year.[12] Double-digit inflation was not experienced until 1973. This absence of inflation reflected the openness of the economy and an exchange rate that was fixed for long periods of time. The domestic price level was determined, therefore, by international price movements, during a period when international inflation was minimal.

The fixed exchange rate reflected, in turn, a preference for monetary stability. The country was willing to adopt enough of the monetary and fiscal discipline necessary to sustain the exchange rate and "maintenance of the external value of the colón" was a major objective of Central Bank policy.

As a consequence, Costa Rica experienced a significant degree of financial deepening. Table 3.01 shows that both the money supply (M2), in the broad sense of currency and demand, savings, and term deposits, as well as domestic credit increased rapidly, when measured in real terms, during those three decades. As shown in Table 3.02, the ratio of M2 to the GDP augmented from 18 percent in 1950 to 24 percent in 1970 and to 42 percent in 1978. Most of this increase resulted from the growth of quasimoney, particularly in the 1970s, as changing preferences for liquidity, risk, and returns led to the diversification of financial-asset portfolios. Similarly, the ratio of domestic credit to the GDP increased from

---

[12] See Claudio Gonzalez-Vega, "Financial Development in Costa Rica. A Long-Term View," San Jose: Unpublished report to the USAID Mission, under the Ohio State University Program, September, 1988.

22 percent in 1950 to 41 percent in 1978.[13] Growth of the domestic credit to GDP ratio was in part due to the increasing use of foreign, rather than domestic, savings for the expansion of credit portfolios.

All of these ratios became comparatively high in the 1970s, particularly in contrast with other Latin American countries where high and erratic rates of inflation had resulted in severe financial repression. They reflected an increasingly successful effort to mobilize domestic resources through the banking system, despite Costa Rica's comparatively low ratios of domestic savings to national income.

Most of the "monetization" of the economy and the provision of a means of payments took place before the 1960s, since by then the ratio of the money supply in strict sense (M1) to the GDP had reached contemporary levels. Subsistence, non-monetary transactions became an insignificant proportion of the Costa Rican economy since the early 1950s, while banking habits were rapildy adopted by the population.

The largest portion of this impressive process of financial deepening was associated, therefore, with growing holdings of quasimoney, as shown in Table 3.03. The ratio of quasimoney to the GDP increased from 4.2 percent in 1961 to 19.2 percent in 1978. As inflationary pressures mounted after the mid-1970s and the opportunity cost of transactions balances augmented, these balances were increasingly kept in new forms, different from checking accounts. In the 1980s, foreign currencies substituted for much of these balances.

---

[13] Claudio Gonzalez-Vega, "Crisis y el Sistema Bancario Costarricense," Ciencias Económicas, V:1, 1985, pp. 63-74.

Table 3.03 Costa Rica: National Banking System. Composition of Money and Credit Aggregates (Percentages). 1950-1986.

	1950	1962	1970	1978	1982	1986
Net Domestic Credit	100.0	100.0	100.0	100.0	100.0	100.0
Public Sector	21.1	11.3	14.3	27.5	43.4	50.8
Private Sector	78.9	88.7	85.7	72.5	56.6	49.2
Total Liquidity (M2)	100.0	100.0	100.0	100.0	100.0	100.0
Quasimoney	24.0	32.2	33.9	55.1	63.6	60.2
Money (M1)	76.0	67.8	66.1	44.9	36.4	39.8

Source: Computed from data in Banco Central de Costa Rica, Credito y Cuentas Monetarias, several years.

A difficult question refers to the extent to which financial deepening may have been facilitated or retarded by the "nationalization" of the banks in 1948. On the one hand, all of the other Central American countries, where the banks had not been nationalized, experienced similarly vigorous financial progress.[14] This was everywhere a result of price and exchange-rate stability, which made the real returns on domestic financial assets positive. In the case of Costa Rica, financial deepening also reflected rapid and sustained economic growth and political stability.

Despite financial deepening, however, Costa Rica's domestic savings ratio has been particularly low and the country has relied heavily on foreign savings for the financing of its domestic investment. In the early 1980s, the excessive accumulation of foreign debt contributed to the breakdown of the foreign exchange regime and to a severe process of

[14] See Claudio Gonzalez-Vega and Jeffrey Poyo, "Central American Financial Development," in William Asher and Ann Hubbard, eds. Central American Recovery and Development. Task Force Report to the International Commission for Central American Recovery and Development. Durham: Duke University Press, 1989.

financial repression, described below. This process accentuated the deficiencies that the system had accumulated, despite the rapid growth of financial magnitudes.

The "nationalization" led, on the other hand, to an expansion of the network of bank branches well beyond what could have been expected otherwise, while the idea that the state-owned banks cannot go bankrupt might have promoted depositor confidence. At the time of the "nationalization" there were 43 bank branches in the country, one for every 20,000 inhabitants. Of these, moreover, 38 belonged to the Banco Nacional. By 1986, on the other hand, there were 248 bank branches, namely, one for every 10,000 persons.

The monopoly of the mobilization of deposits enjoyed by the state-owned banks has been reflected, nevertheless, by the poor quality of the services provided to the depositors, who have had to incur in high transaction costs. These costs have discouraged many from holding domestic financial assets.

Financial deepening in Costa Rica seems to have been more the result, therefore, of appropriate macroeconomic policies that maintained price stability for a long time, than of explicit concerns with financial intermediation, and particularly with deposit mobilization, by the state-owned banks. When macroeconomic management failed in the late 1970s and early 1980s, the system rapidly collapsed.

IV. Impact of the Crisis on the Financial System

Probably more than any other sector in the economy, the financial system suffered significantly with the crisis of the late 1970s and early 1980s, as described below. There was a fiscal reason for this. When the stagnation and contraction of real incomes in the early

1980s reduced the rate of growth of government revenues, the authorities faced severe constraints for an additional mobilization of domestic resources through the use of the conventional tools of taxation. At the same time, public-sector expenditures and implicit, non-recorded subsidies and entitlements kept growing.

Given the increasing discrepancy between public-sector revenues and expenditures, for a while the authorities financed their budget deficits by placing more debt abroad. When the limit to the accumulated stock of public external debt which foreign lenders were willing to accept was finally reached, and expenditures had not been reduced yet, the authorities forced the placement of their debt with the domestic financial system.

Domestic bank financing of public sector deficits had two consequences. First, the expansion of domestic credit at a rate faster than the rate that would have maintained domestic price stability made it impossible to sustain the fixed exchange-rate regime and it resulted in the loss of the country's international monetary reserves, in accelerating inflation, and eventually devaluation. The Wholesale Price Index increased 65 percent in 1981 and 108 percent in 1982. December to December, this index augmented 117 percent in 1981 and 79 percent in 1982. The Consumer Price Index increased 65 percent in 1981 and 90 percent in 1982. The exchange rate increased even faster than domestic prices; it grew seven-fold in less than two years. Foreign exchange controls, multiple exchange rates, and a floating-rate system were adopted.

Second, the private sector was crowded out of domestic bank credit portfolios, as the share of the public sector grew rapidly. Growing fiscal deficits were thus financed with the loss of international monetary reserves, accelerating borrowing abroad, and the inflation tax and financial repression as well as with a substantial expansion of the share of the public sector in domestic credit volumes. The accompanying financial repression led to a significant contraction, in real terms, of all dimensions of the Costa Rican formal financial system.

The rapid process of financial deepening experienced by Costa Rica in the earlier decades had accelerated in the 1970s. Between 1970 and 1975, in real terms domestic funds mobilization by the banking system had increased at a rate of 6 percent per year. Moreover, between 1975 and 1978, this rate reached an exceptional 20 percent per year, as a consequence of the coffee boom. Between 1978 and 1982, on the other hand, domestic funds mobilization declined at an annual rate of 7 percent, as a consequence of financial repression brought about by the fiscal crisis. Currency substitution became substantial. By 1981, deposits in foreign currencies accounted for 28 percent of quasi-money. Deposits in US dollars increased to represent 11 percent of GDP in 1983.

The contraction of the Costa Rican banking system as a result of the crisis was dramatic. In constant 1978 prices, domestic funds mobilization dropped from 12.8 billion colones in 1978, to 9.6 billion in 1982. By 1982, M2 represented only 69 percent of its 1978 real value, after a drop from 12.1 to 8.3 billion colones. The sharpest reduction was experienced by M1, which diminished from 5.4 billion colones in 1978, to 3.0 billion in 1982. This was only 56 percent of the real value reached in 1978 and was comparable to the level already reached by 1970. Although the reduction of quasimonetary deposits was less dramatic, by 1982 they represented 79 percent of their 1978 real value. As a result, the ratio of M2 to the GDP declined to 29 percent in 1981. If dollar deposits in Costa Rican banks are excluded, this ratio further declined to 21 percent.

Table 4.01 National Banking System. Credit Volumes. Index: 1978:100.

	1970	1975	1978	1981	1982	1983
Credit outstanding (end of December):						
Total	50.3	71.5	100.0	46.1	35.5	51.0
Crops	78.5	72.9	100.0	51.5	46.0	72.6
Livestock	56.1	78.0	100.0	43.4	37.7	55.9
Industry	38.1	69.5	100.0	38.8	33.2	51.0
Commerce	24.3	89.6	100.0	65.9	46.7	42.9
Services	31.7	57.0	100.0	37.6	19.2	21.9
Housing	40.1	55.9	100.0	54.1	32.6	39.5
Personal	41.8	86.5	100.0	46.7	18.6	15.1
New loans granted during the year:						
Total	57.9	87.7	100.0	50.7	48.5	58.1
Crops	94.6	102.7	100.0	75.8	91.2	106.9
Livestock	50.1	65.3	100.0	47.1	60.8	65.6
Industry	49.2	90.6	100.0	32.7	37.2	48.0
Commerce	38.3	133.8	100.0	103.0	58.7	59.9
Services	84.9	126.7	100.0	70.7	11.2	14.5
Housing	23.6	56.7	100.0	40.4	21.6	36.8
Personal	20.4	40.9	100.0	25.3	10.4	13.7

Source: Gonzalez-Vega (1985)

A similar contraction was experienced by the real value of domestic credit. Between 1970 and 1975, real domestic credit had increased at an average annual rate of 7.1 percent. Domestic credit further increased (twice as rapidly during 1975-1978) through 1980, when it reached 14.1 billion of constant 1978 colones, aided by the inflow of foreign loans. During 1981 and 1982, however, domestic credit dropped dramatically. By 1982 it had declined to 5.9 billion, only 42 percent of the 1980 level. After some recuperation in 1983, real domestic credit was still at its pre-1975 level.[15]

[15]See Tables 1.05 and 1.06 in the Statistical Annex, as well as Graphs 1.08 and 1.12.

The contraction was particularly acute in the case of domestic credit for the private sector, which declined from 8.6 billion in 1978, to 3.1 billion by 1982, only 36 percent of the former real value. In a few years, the National Banking System's supply of loanable funds to the private sector had been reduced to about one-third of its original real value. This reflected both the erosion of the purchasing power of loan portfolios with rapid inflation and the crowding out of private sector financing in those portfolios.

This loss of access to bank credit by Costa Rican firms took place at a time when inflation and devaluation had also reduced the real value of their own working capital and when they had lost access to foreign loans, in view of Costa Rica's moratorium in the payment of its public external debt and of the expectations created by political turmoil elsewhere in Central America.

Domestic credit for the public sector continued to increase through 1980, when it reached 6.2 billion constant colones of 1978. The following two years, however, it also dramatically declined. By 1982, it amounted to only 2.9 billion, which represented 46 percent of its 1980 level. Thus, in the race between the nominal expansion of credit for the public sector and inflation, inflation was eventually the easy winner.

The crowding out of the private sector in loan portfolios was pronounced. The share of the private sector in domestic credit had only declined from 87 percent in 1961 to 80 percent by 1975. However, by 1981 this share had dropped to 56 percent (see Table 3.03). Moreover, from the perspective of the annual net increments in domestic credit, before 1974 the private sector received at least three-quarters every year. This participation had declined to one-third by 1980. This evolution of the shares of the two sectors in the allocation of domestic credit reflected the fiscal root of the process of financial repression.

Significant portions of the portfolios of the banking system became overdue towards the end of the 1970s. To the extent to which these loans had not been written off, the figures reported here imply an underestimation of the actual reduction in the availability of the banks' loanable funds. This has become evident more recently, when the uncollectable loans have finally been written off.

The decline of these financial ratios also reflected, in part, the loss in relative market share of the regulated market participants. In recent years, there has been a vigorous development of non-regulated financial institutions. Not contrained by interest-rate and other Central Bank regulations, these non-regulated intermediaries have been more aggressive in the mobilization of domestic funds than the formal institutions. In this sense, the reduction in the levels of total financial intermediation in Costa Rica has been less than what is reported here.

V. Central Bank Policies: The Topes de Cartera

In addition to the traditional monetary functions, the Central Bank of Costa Rica has been entrusted with the coordination of the National Banking System and the promotion of economic development. Until recently, one of its main policy instruments had been the topes de cartera, ceilings on the amounts of credit outstanding by type of economic activity. With these quantitative/qualitative limits on credit volumes, the authorities had attempted to influence both the rate of expansion of domestic credit and the pattern of resource allocation.

The Central Bank had been involved in the design of rationing criteria (cuadros de avío), as well. The avíos are maximum amounts to be financed, usually per unit of land, for each particular crop. These amounts have been based on hypothetical costs of production, frequently uniform for the whole country, estimated for the best available technology.

While the topes were used to channel credit towards priority sectors or to discourage lending for non-preferred activities, the avíos were rules for loan-amount credit rationing in the presence of under-equilibrium interest rates.[16] Non-price credit rationing gave politicians, through their control of the tope process, a tool to exercise their patronage and to promote support for their political parties, by responding to the credit demands of specific constituencies. The state-owned banks' "development" objectives were thus frequently replaced by "electoral" considerations.

Over time, the shortcomings of the tope system became evident. The system suffered, indeed, from all the costs and deficiencies of credit targeting, in large scale. The credit program designed by the Central Bank contained quarterly limits on loans outstanding per bank, for a large number of categories (sometimes over 70). The multitude of frequently overlapping and inconsistent ceilings became expensive for the state-owned banks to

[16] Claudio Gonzalez-Vega, "Credit Rationing Behavior of Agricultural Lenders: The Iron Law of Interest Rate Restrictions," in Dale W Adams, Douglas H. Graham, and J.D. Von Pischke, eds., Undermining Rural Development with Cheap Credit in Developing Countries. Boulder, Colorado: Westview Press, 1984.

administer, while the Central Bank had to distract resources from its more basic monetary functions for the design and supervision of the credit program. Given insufficient information and undefined criteria, often the Central Bank's credit program simply reflected projections of the ceilings for the previous year, despite lack of compliance by the state-owned banks, as well as the requests for modifications from specific politicians.

In this environment, the establishment and implementation of the <u>topes</u> became increasingly vulnerable to interest-group pressures. Rather than a maximum of credit allowed per activity, the <u>tope</u> was interpreted as an entitlement which obligated the state-owned banks to lend the amount of the ceiling for each particular purpose. This made it difficult for the Central Bank to use the <u>topes</u> as an instrument to control the expansion of credit, since any reduction would imply a curtailment of these entitlements.

The risk-averse state-owned banks, on the other hand, interpreted that they were not authorized to lend for a particular purpose, unless the corresponding <u>tope</u> line item had been included in the credit program. In this way they passed on the blame for the general shortage of credit to the monetary authorities ("we are sorry, there is no <u>tope</u>"), but were still able to accommodate preferred clients when necessary ("there is no <u>tope</u>, but we can help you"). As a result, year after year the banks essentially made the same loans, despite major changes in circumstances, and there was little room for innovating lending.

Given the impossibility to accurately forecast the composition of the demand for credit, numerous revisions of the credit program were required during each year. Despite these modifications, the banks hardly ever complied with the regulations. Moreover, excess demands for credit for some purposes and excess supplies for others, that could not be easily corrected, increased the rigidity of bank management as well as the transaction costs for the banks and the borrowers. Soon the clients learned, however, to apply for loans for activities for which topes were available and to rely on fungibility for the implementation of their desired production plans.

Over the years, several reforms were adopted in order to minimize the deficiencies of the system, including a drastic reduction of the number of categories in the late 1970s and, in the mid-1980s, the Central Bank undertook a major deregulation of the system, eventually resulting in the complete elimination of the topes and the withdrawal of the Central Bank from the process of determination of the avíos.[17]

Similar problems had become evident with respect to the avíos, particularly after inflation accelerated and more frequent revisions became necessary. Efforts by several interest groups have attempted to influence the estimation of costs of production and the determination of the proportion of these costs to be financed by the banks. Over time, the producers have interpreted the amount of the avío as an entitlement to a given loan size, independent of individual circumstances. Given the enormous heterogeneity of farmers, the application of a uniform avío has resulted in major inefficiencies and inequities. Although the Central Bank is not involved in setting avíos any longer, their use by the state-owned banks is an important credit management issue.

---

[17] Miguel Loría, "Costa Rica. Marco General para la Formulación de la Política Monetaria y Crediticia," San Jose: Unpublished report to USAID, under the Ohio State University Project, 1988.

VI. Central Bank Policies: Interest Rates

The Central Bank is authorized, as well, to set deposit and loan rates of interest. The tope system provided, in effect, ample opportunities for interest-rate differentiation: there was a different interest rate for each line item in the credit program, with a wide margin between the lowest and the highest rates authorized. Several subsidized interest rates were also established by law, as an institutionalization of entitlements for specific groups (rural women, cooperatives, and the like).

Table 6.04. Costa Rica: Banco Nacional de Costa Rica. Size Distribution of Agricultural Credit (Percentages). 1974 and 1981.

Size (CR$)	1974 Cumulative Percentages Number	Amount	1981 Cumulative Percentages Number	Amount
Less than 1,000	100.00	100.00	100.00	100.00
From 1,001 to 5,000	89.89	99.82	97.50	100.00
From 5,001 to 15,000	47.61	96.68	70.50	99.20
From 15,001 to 50,000	22.83	90.83	33.80	96.20
From 50,001 to 100,000	8.52	80.98	13.50	91.30
From 100,001 to 500,000	4.50	73.44	8.70	88.20
From 500,001 to 1,000,000	1.19	55.60	3.40	77.80
Over 1,000,000	0.70	46.43	2.20	70.10

Sources: Vogel (1984) and Loría (1982).

Given extremely low levels of inflation, of less than two percent per year in the 1950s and the 1960s, in those days even the preferential rates were positive in real terms and the implicit subsidy was moderate. With the acceleration of inflation in the 1970s, on the other hand, real interest rates became negative and the subsidy became substantial and highly concentrated in a few hands.[18]

Despite the "nationalization" of the banks, there has been a high concentration of credit portfolios in Costa Rica. As shown by Vogel (1984), the distribution of loans by size has been more unequal than the distribution of land or the distribution of income. Moreover, as shown in Table 6.04, concentration has been increasing, as would be predicted by the iron law of interest-rate restrictions.[19] In 1974, less than 10 percent of the number of borrowers received more than 80 percent of the amounts disbursed for agriculture by the Banco Nacional de Costa Rica. In 1981, when real interest rates became particularly negative, less than 10 percent of the borrowers received more than 90 percent of those amounts.[20] As a consequence of this concentration, few have benefited from most of the implicit interest-rate subsidy, particularly during inflationary periods, when the real rates of interest on loans have become negative.

---

[18] Robert C. Vogel, "The Effect of Subsidized Agricultural Credit on Income Distribution in Costa Rica," in Dale W Adams, Douglas H. Graham, and J. D. Von Pischke, eds. Undermining Rural Development with Cheap Credit in Developing Countries, Boulder, Colorado: Westview Press, 1984.

[19] Claudio Gonzalez-Vega, "Credit Rationing Behavior of Agricultural Lenders: The Iron Law of Interest-Rate Restrictions, in Dale W Adams, Douglas H. Graham, and J.D. Von Pischke, eds. Undermining Rural Development with Cheap Credit in Developing Countries, Boulder, Colorado: Westview Press, 1984.

[20] Miguel Loría, "La Demanda de Crédito en Costa Rica," San Jose: Unpublished Thesis, University of Costa Rica, 1982.

As an example, under the conservative assumption that the social opportunity cost of the funds was 10 percent per year, in real terms, the rate effectively charged on loans during 1974 was a negative -20 percent. Thus, the implicit rate of subsidy was 30 percent. Agricultural credit represented close to 60 percent of the value added in agriculture and over one-half of the loan portfolio of the banks. This meant that, in the important case of agriculture, the amount of the grant transferred through subsidized credit was equivalent to 20 to 25 percent of value added in the sector. On the other hand, only about 30 percent of the agricultural producers of the country had access to bank loans, while the remaining 70 percent were excluded from access to formal credit and thus from the subsidy.

In addition, in 1974 there was a high degree of portfolio concentration. In the case of the Banco Nacional de Costa Rica, which granted over one-half of all formal agricultural credit in the country, less than two percent of the borrowers accounted for over 60 percent of the amounts loaned. This meant that less than one percent of the agricultural producers of Costa Rica received more than 60 percent of the agricultural credit granted by the state-owned banks and over 60 percent of a substantial subsidy, equivalent to almost 25 percent of the value added in agriculture in 1974. Contrary to the expectations of the "nationalization" decree, the state-owned banks have thus contributed to a worsening of the country's wealth distribution. Moreover, by the end of the decade it was estimated that about 40 percent of the loan portfolio of the banks represented defaulted loans. There was a significant transfer on this count, as well, mostly to the few privileged very large borrowers who did not repay their loans.

Until the mid-1970s, the interest rates paid on deposits were never much of a concern for the authorities. With the acceleration of inflation and the resulting capital flight in the late 1970s, however, the Central Bank began to pay attention to the rewards to depositors. In 1978, a partial financial reform raised real interest rates to positive levels for a few months and a high interest elasticity of deposits was revealed. This reform failed, nevertheless, due to the absence of fiscal control and the resulting inflationary pressures.

Thus, while the interest-rate reform stimulated deposit mobilization, the financing of the public sector deficit crowded out the private sector from bank credit portfolios. The explosive fiscal disequilibrium of the early 1980s eventually resulted in a further acceleration of inflation. Interest rates, on the other hand, were not adjusted upwards sufficiently to compensate for the more rapid rate of inflation and became extremely negative in real terms. The financial system experienced, as a result, the major contraction described above.

The Central Bank has also assumed the foreign-exchange risk associated with substantial inflows of foreign financial assistance for the targeted credit programs of the state-owned banks. After the major devaluations of the 1980s, this has resulted in substantial losses for the Central Bank. Operational losses have been inflationary and have further complicated monetary management.

The Central Bank has attempted to influence resource allocation through its rediscounting programs, as well. These programs have been accessible to the state-owned banks only, but not to the private banks. Indeed, the private banks have lacked any access to a lender of last resort, to deal with liquidity shortages.

The Central Bank has diverted considerable amounts of funds to the public sector through its reserve requirement policies, which have restricted the expansion of credit for the private sector and have allowed a greater volume of public-sector borrowing from the Central Bank and the state-owned banks. Numerous autonomous institutions and state enterprises (particularly CODESA, and the Consejo Nacional de la Produccion, a price-stabilization agency) have enjoyed automatic access to Central Bank funding.

CODESA's access to Central Bank credit, which in 1983 represented one-half of all domestic credit for the public sector and 18 percent of all bank credit, was a major reason for the severe crowding out of the private sector in bank portfolios in the early 1980s. At the same time, in 1983 CODESA's enterprises contributed only 1.8 percent of the GDP and employed only 0.3 percent of the labor force. None of those public enterprises ever showed a profit.[21] Recent Central Bank initiaties have finally excluded these institutions from access to Central Bank loans, but not to other sources of bank credit.

VII. Institutional Evolution of the Nationalized Banks

The decree that "nationalized" the private banks in 1948 had two main consequences on the structure of the Costa Rican banking system:

(a) it created a legal monopoly in the mobilization of deposits from the public, in favor of the four state-owned banks, and

---

[21] Thelmo Vargas, "Viabilidad del Estado Empresario. El Caso de CODESA," San Jose: Unpublished report for USAID, 1987.

(b) it transformed the three expropriated private banks into public enterprises. Although the BNCR was already a public enterprise, it had been managed by professional bankers, with a considerable amount of independence from the Government.[22] After 1948, the BNCR experienced the same institutional changes as the other three banks.

The monopoly of deposit mobilization became a substantial restriction to entry into financial markets and sharply limited competition. It has been only recently, that the new dynamic private commercial banks have challenged the four state-owned institutions in the market for banking services. The transformation of the banks into state-owned enterprises modified, on the other hand, the objective function of their managers as well as the mechanisms for control over their decisions and actions.

Five dimensions of the institutional evolution of the Costa Rican "nationalized" banking system are worth mentioning:

(a) the gradual change in organizational culture, from state-owned banks that mimicked the private banks from which they had sprung, to labor-dominated bureaucratic institutions;

(b) the gradual change in the degree of autonomy from the Executive enjoyed by the state-owned banks, which led to an increasing political intrusion in credit allocation;

(c) the changing role of the Central Bank and the recent deregulation attempts;

---

[22] Fernando Ortuño, El Monopolio Estatal de la Banca en Costa Rica, San Jose: Trejos Hermanos, 1963.

(d) the gradual emergence of evasion and avoidance mechanisms, which led to increasingly active non-regulated financial systems and to growing competition from the private banks; and

(e) the transformation of the state-owned banks into borrower-dominated financial institutions, a source of services and important subsidies for borrowers, at the expense of depositors.

The 1948 Junta had decided to keep the expropriated private banks as separate institutions, in order to avoid a concentration of power and to promote some competition. All the banks benefited from immediate capital contributions from the Government. A large transfer to the Banco Nacional, earmarked for subsidized, long-term agricultural credit, was the first of numerous and substantial fiscal and donor contributions aimed at increasing the availability of loanable funds for target populations and end uses.

The Junta kept the old staff of the banks. The members of the boards of directors were asked to retain their positions, as well, and most did. Not much change in credit policies took place when the directors stayed. In practice, therefore, there had been a change of owner, but the banks continued to operate for some time as if they were private commercial banks. Highly respected professional bankers, who knew their clientele well, continued as managers for a long time and maintained a considerable independence from the political power. This was the case even for the BNCR. The 1950s and early 1960s were, therefore, the golden age for the "nationalized" banks, revitalized by the infusions of funds and by exceptionally rapid economic growth.

Gradually, however, the old bankers began to be replaced by politicians in the boards of directors and the management of the institutions. The directors were appointed by the Executive, for four-year periods, while the managers were appointed by the boards, for similar periods. Given the alternation of different political parties in the control of the Executive and since one-half of the board was replaced every two years, each new administration had to wait for two years before it controlled a majority of the board. This gave the banks considerable independence in those earlier years.

In time, however, more and more the appointments became political rewards rather than reflecting an identification of a professional capacity in bank management. Appointed for only four years, the directors had little time and incentives to learn the complexities of banking and saw their position merely as an opportunity to advance their own political career.[23] From their political rather than technical perspective, the new bank directors were open to the influence of the Executive and of their political party and vulnerable to the pressures from the private interest groups which they represented. Political intrusion and rent-seeking increasingly characterized their performance.

After 1970, the independence of the banks further declined. According to the Constitution, the four state-owned banks had become autonomous institutions. The Constitution originally defined "autonomy" as independence with respect to both policy and management. The purpose was to protect the technical operations of these institutions from political

---

[23] Jaime Solera, "Nacionalización Bancaria," in Ideario Costarricense, 1977. Banca, Moneda y Crédito. San Jose: Casa Presidencial, Oficina de Información, 1977.

intrusion. In 1970 the Legislative approved a constitutional amendment, however, that restricted the independence of the autonomous institutions to matters of management only. As a result, the banks have had to follow the directives of the Executive.

An increasing politicization of the state-owned banks came also as a result of changes in the method of appointment of their boards of directors. After 1970, appointments were made at the beginning of each administration, four directors chosen from the winning party and three directors from the runner up (the 4-3 Law). An additional loss of independence took place in 1974, when a new law authorized the President to freely appoint and remove an Executive President for each autonomous institution, as its main executive officer.

With the nationalization of the banks, the control over management exercised by the private shareholders disappeared. The banks were supposed not to pursue profit maximization any longer, but a set of criteria for the evaluation of their performance was never defined. The staff of the banks gradually filled the vacuum thus created.[24] The number of employees at the banks increased from 686 in 1950 to 8,340 in 1986. This represented a rate of growth of employment at the banks twice as fast as for the economy as a whole. Labor unions of bank employees increasingly used their strength to improve their salaries and fringe benefits. Bank wages became higher than those for equivalent occupations in other sectors, while an important proportion of the banks' accounting profits was earmarked for employee fringe benefits (e.g., special pension plans).

---

[24] Eduardo Lizano, "Nacionalización Bancaria," in Ideario Costarricense, 1977. Banca, Moneda y Crédito. San Jose: Casa Presidencial, Oficina de Información, 1977.

Rigid bureaucratic structures controlled by the labor unions severely restricted the adoption of staff promotion policies based on efficiency and of performance-linked incentives to employees. Further organizational deficiencies described below, accentuated by this political economy environment, led the state-owned banks not to focus their institutional capacity to deal with risk in their lending decisions. This has been one of their major shortcomings and a formidable threat to their viability.

Eventually, in the early 1980s substantial portions of their portfolio were already overdue. In 1983, the outstanding balances of loans with overdues of more than 90 days amounted to 24 percent of the state-owned banks total portfolio. The BNCR had the lowest ratio (21 percent), but still significant. By 1985, loans with more than 30 days overdues represented 33 percent of the portfolio of the four banks. The BNCR showed, by then, the highest proportion (36 percent). Of this, at the BNCR 8.2 percent of the portfolio was already being collected in the courts (cobro judicial).[25]

Political intrusion in the state-owned banks had eventually resulted in high levels of repayment delinquency in their portfolios. Political influences further resulted in losses for these banks. In the late 1980s, severe droughts and reductions in the international prices of several export crops led to a "crisis" in the agricultural sector. Major lobbies obtained legislation to reschedule most of the delinquent agricultural loans at subsidized interest rates.

---

[25] Marco Antonio Gonzalez-Garita, "Eficiencia y Costos de Intermediación Financiera: El Caso del Sistema Bancario Costarricense." San Jose: Unpublished report for USAID, 1987.

The rescheduling legislation (FODEA), which mandated debt relief for delinquent agricultural borrowers, was enacted by unanimity in Congress. The implicit subsidy has been substantial and heavily concentrated in favor of a few large farmers. In the case of the Banco Nacional, of the 12,593 farmer with rescheduled loans in 1988, the bulk, 10,461 were smaller borrowers (with less than US$ 20,000 in total borrowing), but they accounted for only 26 percent of the amounts rescheduled. Another 1,508 farmers (with total borrowing between US$ 20,000 and US$ 70,000) accounted for 30 percent of the total amount delinquent, and 624 clients (with borrowings above US$ 70,000) were responsible for 44 percent of the arrears.

Under the assumption of a rate of inflation of 20 percent per year during the 16 years of the rescheduling, the present value of the implicit subsidy amounted to US$ 20 million. With the rate of inflation at 40 percent, this subsidy would be equivalent to US$ 30 million. About five percent of the beneficiaries (the largest delinquent borrowers) will capture between 30 and 40 percent of this massive transfer of income.[26] This has been one of the most impressive examples of the power of the rent-seeking interest groups within a "nationalized" banking system.

[26] Luis Mesalles, "Costa Rica: The Political Economy of Agricultural Credit," San Jose: Unpublished report for USAID under the Ohio State University project, 1988.

VIII. Costa Rica's Financial Reform

Following the steps of many developing countries during the past decade, since 1984 the Costa Rican authorities have implemented an ambitious financial reform. The reform has attempted to:

(a) increase competition and reduce barriers to entry into financial markets;

(b) augment the role of market forces (supply and demand) in the determination of interest rates and other prices of financial services;

(c) augment the role of market forces in credit allocation decisions and in the determination of other terms and conditions of financial contracts;

(d) improve the prudential supervision over the banking system; and

(e) increase the independence of the Central Bank from political pressures.

The background for the reform has been the comparatively successful stabilization program implemented since 1982. The relative price and exchange rate stability thus obtained has created an environment more favorable to financial intermediation than during the crisis, but not quite as propicious as during the earlier decades. The unified exchange rate, under the crawling-peg regime, has avoided major disequilibria in the foreign exchange market, but expectations about a rapid rate of devaluation have exerted upward pressure on real interest rates. Two-digit rates of price increases have reflected a moderate but continued use of the inflation tax which, coupled with high reserve requirements on bank deposits, have repressed financial activity. A substantial portion of the public's holdings of financial assets are still in foreign-currency deposits at the state-owned banks, while the crowding out of the private sector in domestic credit portfolios remains substantial.

Increased competition for the state-owned banks has come from the private commercial banks, heavily supported by AID through specially-established rediscounting lines at the Central Bank. The private banks' share of the loan market increased from 0.3 percent in 1978 to 15.3 percent of the National Banking System's portfolio in 1986. In 1989, new loans increased 71.4 percent at the private banks, 62.9 percent at the financieras, and only 11.3 percent at the state-owned banks.

One of the main consequences of the expansion of the private banks and the resulting increased level of competition in financial markets has been their impact on the behavior of the state-owned banks, including the BNCR. Major changes in structural organization and in the choice of financial technologies have taken place, under the leadership of new dynamic management. The state-owned banks' movement towards greater emphasis on their corporate banking services, and their new concern about financial viability, have led them, on the other hand, to question those activities where they lose money. The dilemmas resulting from several conflicting objectives are forcing these banks to reconsider their role and redefine their policies and procedures, as described below for the BNCR.

Since 1984, there has been a process of reduction of interest rate restrictions, leading to complete freedom in their determination five years later. Late in 1989, the Central Bank eliminated the last remaining restriction, which required the commercial banks to keep an intermediation margin of no more than 9 percentage points between their deposit and loan interest rates.

In addition, since 1987, the Ministry of Agriculture has budgeted resources to compensate the state-owned banks for the difference between the rate charged on subsidized small farmer loans and the rate paid on six-month deposits, while agreements with the World Bank, for the II Structural Adjustment Loan, and with AID, for their Development Assistance Program, have introduced ceilings on the total amount of subsidized credit that may be granted by the National Banking System. It is expected that the nominal, and therefore the real, value of the ceiling will gradually decline over the years. As a result of these reforms, most of the subsidized credit remaining in the System is associated with special international donor programs.

In 1984 the Central Bank also initiated a gradual process of reform of the credit program, in order to transfer to the commercial banks full responsibility for credit allocation. From the topes de cartera, the Central Bank moved to the establishment of a few global limits on credit by sectors of economic activity. In 1987, the Central Bank set a maximum on the rate of growth of the credit portfolio, with no restrictions as to its composition. When in 1987 the share of "non-productive" loan uses rapidly increased in the banks' portfolio, political pressure was exerted by the Executive, and global ceilings on total credit and on "non-productive" credit balances were reintroduced in 1988 and 1989. All quantitative credit restrictions have been eliminated in 1990.

Increased independence for the Central Bank was achieved by changing the composition of its board of directors, where only the Minister of Finance remains as an ex officio member, and by eliminating the automatic access to Central Bank credit by several public sector agencies, such as the CNP. Prudential supervision has been substantially improved under the responsibility of the new Auditoria General de Entidades Financieras, created by the 1988 Banking Law.

IX. Agricultural Credit: From Success Story to Crisis

Among developing countries, Costa Rica has enjoyed particularly favorable conditions for the progress of rural financial markets, including:

(a) reasonably well-defined property rights and a legal framework for the enforcement of contracts;

(b) widespread land ownership, that has allowed mortgages to become a usable form of collateral;

(c) small country size and an extensive development of roads, communications, and a bank branching infrastructure, that have contributed to a reduction of transaction costs;

(d) substantial investments in human capital, resulting in an educated clientele and bank staff; and

(e) political and institutional stability.

With organization, infrastructure, and accessible information, success in the development of rural financial markets as well as the viability of the institutions that serve them have been more likely. It is not surprising, therefore, that in many ways, for a long time Costa Rica had been a success story with respect to agricultural credit.

The authorities had become interested in small-farmer credit issues as far back as 1914, when the first state-owned bank, the Banco Internacional de Costa Rica (today, the

Banco Nacional de Costa Rica) was created. At that time, the Cajas Rurales de Crédito were organized, "to liberate small farmers from the usurious conditions of moneylender loans, and to stimulate production of basic grains for domestic consumption."

Moreover, since the middle of the nineteenth century, the coffee beneficios had operated, in effect, as small rural banks. Even today, loans from coffee processors and cooperatives represent an efficient credit delivery system that finances a substantial portion of the credit demand of thousands of coffee growers.[27]

When in 1936, the Banco Internacional de Costa Rica was converted into the Banco Nacional de Costa Rica, the Cajas became the Juntas Rurales de Crédito Agrícola (rural boards for agricultural credit), and the concept of credit allocation by a board of local community members was maintained. Five board members evaluated their neighbors' creditworthiness on the bank's behalf and were responsible for loan collection. Indeed, in the earlier days, board members earned their commissions on the basis of the amounts of the loans collected.[28] The two ingredients for success present in these arrangements were the utilization of locally available information in credit allocation decisions and the presence of strong incentives for loan collection. These ingredients were also present in the credit operations of the coffee beneficios.

---

[27] Gail Ann Morris, "An Economic Evaluation of Coffee Credit Delivery and Allocation in Costa Rica." University of Nebraska-Lincoln: Department of Agricultural Economics, Report No. 127, 1982.

[28] Claudio Gonzalez-Vega, "Small Farmer Credit in Costa Rica: The Juntas Rurales," in Small Farmer Credit in Costa Rica, AID Spring Review of Small Farmer Credit, Vol. II. Washington, D.C.: Agency for International Development, February, 1973.

In the 1940s the Juntas had already become a major instrument for the government's agricultural policies and by 1947 the number of new loans granted reached 12,641. Indeed, the success of the Juntas had preceeded the "nationalization" of the banks. In 1952, the 38 Juntas in operation authorized 19,994 loans, provided technical assistance to farmers, and contributed to land purchases and the marketing of basic grains. Of the 157,146 loans granted by the Juntas between 1937 and 1952, only 36 had not been repaid. Of the accumulated loans for 122.6 million colones (equivalent to US$ 18 million) disbursed during the same period, default amounted to only 15,895 colones (US$ 2,390). This was a most impressive repayment record by any standards. It reflected the character of Costa Rican farmers, a tradition of respect for contracts and for legal institutions, and the credit-worthiness evaluation practices of the local boards.

In 1953, the Sección de Juntas Rurales de Crédito Agrícola was created at the Banco Nacional. This Sección was transformed into a Departamento in 1959. A member of the staff of the bank, the delegado, became the executive arm of the Junta. This was the beginning of a process of centralization of rural credit administration and of diminishing authority of the local board, which has continued until today. In 1988, the Banco Nacional began the implementation of its new strategy of decentralization, by creating 10 regional offices, as discussed below.

Starting in 1960, with a Chase Manhattan Bank loan, and in 1962, with a loan from the Development Loan Fund, substantial amounts of foreign resources have been used for small farmer credit programs at the BNCR. The allocation of domestically mobilized funds for this purpose, on the other hand, soon stagnated, while the terms and conditions associated with the external funds were adopted as the norm for small farmer loan operations.

Table 9.01 Costa Rica: National Banking System. Composition of Credit Outstanding, by Sector of Economic Activity (Percentages). 1950-1987.

Year	Agriculture	Livestock	Industry	Other a/
1956	40.1	13.7	12.4	33.8
1957	46.6	11.7	10.4	31.2
1958	43.9	13.4	11.0	31.7
1959	43.3	15.4	11.8	29.6
1960	43.6	16.6	12.1	27.7
1961	42.3	17.1	13.8	26.8
1962	39.9	17.7	15.4	27.0
1963	39.6	15.3	15.4	29.7
1964	37.7	15.6	16.7	30.0
1965	37.1	17.4	17.5	28.0
1966	37.5	18.4	16.7	27.4
1967	35.2	19.7	18.1	27.0
1968	34.6	21.4	18.5	25.5
1969	33.5	23.2	19.5	23.7
1970	33.9	23.2	19.9	23.0
1971	29.3	24.7	17.8	28.2
1972	26.0	26.1	18.3	29.6
1973	22.9	30.2	21.7	25.2
1974	20.7	27.3	25.3	26.7
1975	22.5	23.3	25.7	28.5
1976	23.8	22.7	25.2	28.3
1977	21.8	22.6	26.0	29.6
1978	22.1	21.4	26.5	30.0
1979	20.3	21.2	24.7	33.8
1980	21.2	21.8	22.4	34.6
1981	24.7	20.2	22.3	32.8
1982	27.5	22.6	24.6	25.2
1983	31.4	23.4	26.6	18.7
1984	31.4	23.0	27.6	18.0
1985	22.9	22.4	32.4	22.3
1986	20.9	19.5	32.0	27.6
1987	19.8	16.5	31.6	32.1

a/ Includes: Commerce, electricity, services, housing, personal credit, credit to foreigners and unclassified credit.
Source: Computed from data in Banco Central de Costa Rica, Credito y Cuentas Monetarias, several years. Amounts deflated by the Wholesale Price Index.

As a consequence of these institutional developments and of the generalized process of financial deepening experienced by the country, Costa Rican farmers have enjoyed a comparatively ample access to credit. Crops and livestock received the lion's share, indeed, of the expansion of real bank credit portfolios through the mid-1970s.

While in the early 1970s, it was estimated that only about 5 percent of all farmers in Africa and about 15 percent of those in Asia and Latin America had had access to institutional loans, this proportion was over 30 percent in the case of Costa Rica.[29] If bank credit delivered to coffee producers through the beneficios is included as formal credit, this proportion was close to an exceptionally high 45 percent in those days.

Moreover, agriculture always enjoyed substantial shares of the total bank loan portfolio. By 1960, while the average proportion of agricultural loans with respect to total domestic credit for the private sector was 22 percent among 18 Latin American countries, it was 60 percent for Costa Rica, the highest proportion in the Hemisphere.[30] By 1973, these proportions were 24 percent for Latin America and 54 percent for Costa Rica.[31] Despite substantial structural transformation, by 1980 the share of agriculture in outstanding credit portfolios was 43 percent, more than twice the sector's contribution to the GDP.

---

[29] Gordon Donald, Credit for Small Farmers in Developing Countries. Boulder, Colorado: Westview Press, 1976. The World Bank, Bank Policy on Agricultural Credit. Washington, D.C.: The World Bank, 1974.

[30] Dale W Adams, "Agricultural Credit in Latin America: A Critical Review of External Funding Policy," American Journal of Agricultural Economics, LIII:2, May, 1971, pp. 163-172.

[31] Claudio Gonzalez-Vega, "Las Políticas de Tasas de Interés y la Asignación del Crédito Agropecuario por las Instituciones Financieras de Desarrollo de América Latina," in Eduardo Sarmiento, ed. Políticas de Tasas de Interés, Inflación y Desarrollo en América Latina. Washington, D.C.: Banco Interamericano de Desarrollo, 1981.

Also, the share of crops and livestock in the annual flows of new loans was 46 percent at that time (see Tables 9.01 and 9.02 and Statistical Annex).

Table 9.02 Costa Rica: National Banking System. Annual Real Rates of Growth of Credit Outstanding, by Sector of Economic Activity. (Percentages). 1951-1987.

Year	Total	Agriculture	Livestock	Industry
1951	17.5	n.a.	n.a.	n.a.
1952	27.5	n.a.	n.a.	n.a.
1953	16.3	n.a.	n.a.	n.a.
1954	2.4	n.a.	n.a.	n.a.
1955	8.7	n.a.	n.a.	n.a.
1956	12.8	n.a.	n.a.	n.a.
1957	18.3	37.4	1.5	0.1
1958	4.3	-1.8	19.2	9.6
1959	21.8	20.2	40.2	30.6
1960	10.4	11.3	18.6	13.9
1961	3.9	0.7	7.2	18.5
1962	4.8	-1.0	8.7	16.5
1963	20.8	19.8	4.4	20.6
1964	13.7	8.1	16.1	23.8
1965	13.2	11.4	25.8	18.5
1966	-0.1	1.2	5.7	-4.8
1967	2.2	-4.2	9.3	11.0
1968	0.8	-1.0	9.6	3.0
1969	1.6	-1.4	10.4	7.2
1970	8.0	9.2	8.0	10.1
1971	23.6	6.9	31.4	10.3
1972	5.0	-6.8	10.9	8.2
1973	-11.8	-22.3	2.1	4.2
1974	3.1	-6.9	-6.7	20.2
1975	17.3	27.6	-0.1	19.3
1976	12.1	18.5	9.4	9.9
1977	9.7	0.4	8.9	13.4
1978	13.5	15.3	7.6	15.4
1979	-3.4	-11.4	-4.4	-9.8
1980	-5.7	-1.4	-2.8	-14.5
1981	-49.5	-41.1	-53.3	-49.7
1982	-22.5	-13.7	-13.0	-14.4
1983	43.0	63.2	48.0	54.2
1984	11.9	11.8	9.9	16.1
1985	1.0	-26.5	-1.5	18.8
1986	4.2	-4.6	-9.3	2.9
1987	11.8	5.5	- 5.4	10.5

Source: Computed from data in Banco Central de Costa Rica, Credito y Cuentas Monetarias, several years. Amounts deflated by the Wholesale Price Index.

Similarly, while between 1960 and 1973, while the ratio of agricultural credit to the value added in agriculture rose from 23 to 29 percent for Latin America as a whole, it increased from 62 to 73 percent for Costa Rica. This exceptionally high level of financing of agricultural activities continued during most of the 1970s. Moreover, through the mid-1970s, loan delinquency rates were still low for agriculture, in general, and for small farmers, in particular.[32]

During the 1980s, the regulated banking system of Costa Rica experienced a severe contraction and loanable funds became particularly scarce, as explained above. By the end of 1982, in real terms, the portfolio of outstanding bank loans to the private sector had declined to about one-third of its 1978 value and it represented just over two-thirds of the value already reached by 1970. The real value of outstanding loans for crops (agricultura) and for livestock (ganadería) also declined, although proportionately less. By 1982, outstanding loans for crops amounted to 44 percent of their 1978 real value, and outstanding loans for livestock, 38 percent. Investment credit suffered the most.

Table 9.02 shows how, during the early stages of the crisis, agricultural credit suffered much, but proportionately less than the amounts of financing for other activities. This may have reflected, in part, the better performance of the agricultural sector during the worst years of the crisis, compared to the rest of the economy.[33] The authorities channelled

---

[32] Robert C. Vogel, "Rural Financial Market Performance: Implications of Low Delinquency Rates," American Journal of Agricultural Economics, LXIII:1, 1981, pp. 58-65.

[33] Victor Hugo Cespedes, Claudio Gonzalez-Vega, Ronulfo Jimenez, and Eduardo Lizano, Costa Rica: Estabilidad sin Crecimiento, San Jose: Academia de Centroamerica, 1984.

funds towards this sector, as well, in view of its importance in terms of export earnings and food prices. As a consequence, the share of agriculture in the portfolio of credit outstanding grew from 41 percent in 1979 to 50 percent in 1982, while the share of the sector in the flow of new loans jumped from 37 percent in 1979 to 59 percent in 1982. Although the real value of the amounts disbursed was low, the proportion of agriculture in the portfolio increased sharply.

An important recuperation of real credit values took place in 1983, once the exchange rate was stabilized and inflation was brought under control. That year, the flow of new loans for crops reached a historical maximum, even when measured in real terms. The proportion of the flow of new loans received by the sector was 57 percent, while the proportion of the portfolio of outstanding loans was 55 percent. The volumes of formal agricultural credit have declined afterwards.

X. The Recent Credit Crunch

After the sharp recovery of 1983, the agricultural credit volumes from the National Banking System declined for a couple of years, both in nominal and in real terms. These volumes increased in 1986, to decline again during the most recent years. The share of the portfolio of loans outstanding devoted to crops and livestock fell from the exceptionally high 57 percent in 1983, to 37 percent of the total by the end of 1987. The share of credit for crops in the flow of new loans declined from 60 percent in 1983, to a historical low of 27 percent in 1987. In addition, between 1983 and 1987, the share of livestock in the flow of new loans declined from 18 to 7 percent of the total. Similarly, the proportion of agricultural loans to the value added in that sector declined, as well. It appears, therefore, that agriculture, in general, and small farmers, in particular, have been recently suffering from a credit crunch.

To the extent to which there may have been a change in the composition of the sources of loans for farmers, the recent smaller amounts of bank credit may have been offset by more credit from suppliers and other nonbank sources of loans. The Banco Internacional de Costa Rica and foreign banks became important sources of credit for coffee and sugar. Furthermore, to the extent that increased arrears and default represented loanable funds which were not returned to the banking system, but remained in the hands of the delinquent borrowers, the contraction may have been less than indicated by the figures reported here. Indeed, during the 1980s, the proportion of delinquent loans in the portfolios of the state-owned banks increased to alarming levels, reflecting either the lack of ability or the absence of incentives for farmers to repay their loans, as well as the reduced willingness and/or ability of the banks to collect those loans. This made those farmers not eligible for additional bank credit and reduced the flow of new loans for this sector. This situation was addressed by the FODEA legislation, described below.

In some cases, the crisis as well as other changes in the external and domestic circumstances may have resulted in difficulties to repay. In many cases, however, the expectation that the interest rates attached to new loans would be higher, the fear to lose their position in the rationing queue, or the expectation of rescheduling options may have represented strong incentives for borrowers to delay repayment. The resulting high level of arrears and default not only reduced the effective volume of the loanable funds available for new projects, but it seriously compromised the financial viability of the state-owned banks.

The recent evolution of agricultural credit portfolios has reflected both demand and supply forces. There have been significant changes in the relative profitability of several sub-sectors. In some cases (particularly for rice), a lower profitability has been the result of deliberate policy decisions, in an effort to reduce the level of protection enjoyed by domestic producers. In other cases, profitability changes have reflected the evolution of international prices (sugar, beef). In the case of the new, non-traditional export crops, rapid growth in credit volumes has reflected their increasing profitability due to a real devaluation. All of this has resulted in shifts in portfolio composition, towards products in which Costa Rica possesses stronger comparative advantages. To the extent to which a structural adjustment program attempts to promote resource reallocations of this sort, such changes in credit portfolio composition are desirable and have increased economic efficiency.

Higher real interest rates have reduced the demand for loans, as well. Less attractive uses of funds, many of them not necessarily for agricultural purposes, would have been discouraged. Again, this has been a desirable result of efficient financial intermediation. Concern about real rates of interest being too high, on the other hand, can be effectively addressed only through a reduction of the crowding-out effects associated with too large a public sector claim on domestic credit balances.

A large reduction in agricultural credit flows has not been associated with a similar decline in the agricultural output. This suggests that, in the past, there might have been high levels of credit deviation and marginal substitutions of funds, in view of their fungibility.

Many of the now discouraged uses of funds would have been associated with non-agricultural activities financed by "agricultural" credit. The elimination of the topes de cartera system would have reduced incentives for the state-owned banks to record a particular loan as "agricultural" credit, as well. On the other hand, partial deregulation would have created incentives for the banks to move away from subsidized credit activities, in an effort to increase their profits, in a more competitive environment. Eventually, a formal ceiling was placed on this type of credit.

In order to investigate changes in the degree of access to credit, a survey of agricultural producers was conducted by the Ohio State University-Academia de Centroamerica team in early 1988.[34] The sample included 325 farmers, in three different regions of Costa Rica.[35] This survey confirmed the hypothesis of a comparatively high degree of farmer access to credit, in historical perspective. In the sample, 88 percent of the agricultural producers had had loans, from any source, at least once during their lives. A high proportion (74 percent) had received loans, at least once, from a formal source, while 27 percent had

---

[34] Claudio Gonzalez-Vega, Ronulfo Jiménez, and Luis Mesalles. Costa Rica: Fuentes de Crédito para los Agricultores. Columbus: Agricultural Finance Program, The Ohio State University, August, 1989. This study was sponsored by the Costa Rican Central Bank.

[35] The three regions were: (a) the South-West end of the Central Valley (Puriscal, Turrubares, San Mateo, and Orotina), a depressed region of traditional small farmers; (b) the North-West end of the Central Valley (San Ramón, Palmares, Naranjo, and Alfaro Ruiz), a rich, export-oriented region; and, (c) the Santa Cruz, Nicoya, Nandayure, Hojancha corridor in Guanacaste, a basic-grain and livestock region that was suffering from a draught.

had loans from semiformal sources and 42 percent had borrowed from informal sources.[36] (See Graph 10.01) Both a high degree of access to credit and the importance of formal sources are unusual in comparison to other developing countries.

Access to agricultural credit in 1987, on the other hand, had been much less frequent. Only 56 percent of these agricultural producers had credit, from any source, during that year. This meant that 44 percent of the producers in the sample relied entirely on the self-financing of their enterprises. The reduction in the degree of access to formal credit, compared to historical levels, was more pronounced still. Only 20 percent of the sample producers had access to formal loans during 1987, while 24 percent had access to semiformal, and 27 percent borrowed from informal sources during that year. (See Graph 10.02) Less than 10 percent of the producers in the sample held a current account at a bank and no more than one-fifth possessed a passbook savings account.

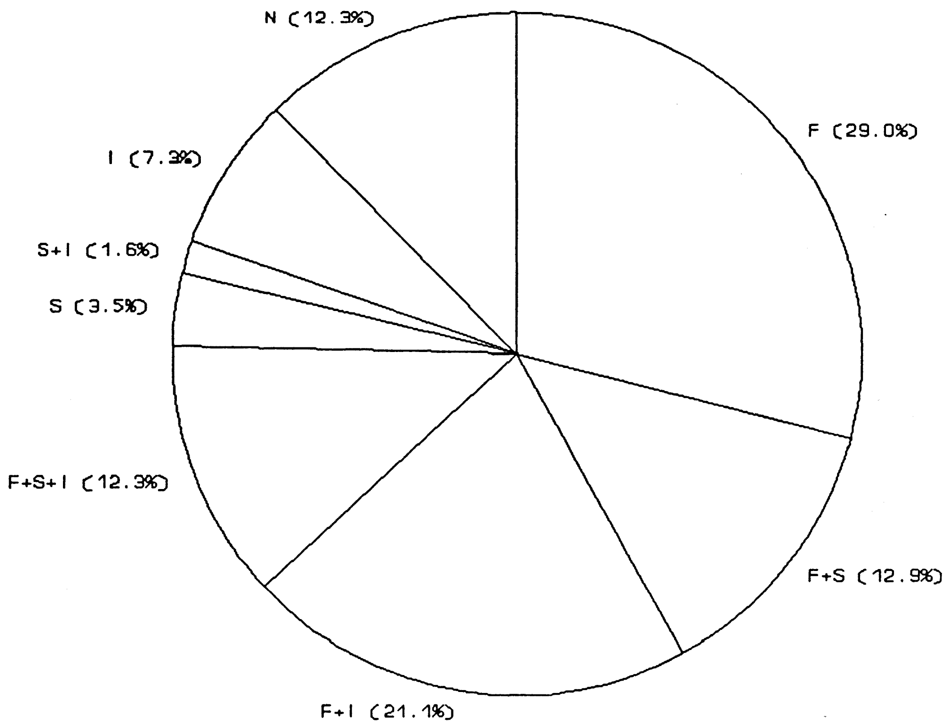
The survey showed that most of the loss of access to formal loans had taken place in the early 1980s, on occassion of the crisis, and that access had not been fully recovered afterwards. After 1983, on the other hand, there has been a substantial expansion of the semi-formal sources of loans, particularly from credit unions and coffee beneficios and cooperatives in the Central Valley. These intermediaries have offered better quality of services and have imposed lower transactions costs on their customers.

---

[36] The survey classified sources of credit into: (a) formal (regulated institutions, such as the state-owned and private banks, financieras, mutuales, and public agencies); (b) semiformal (non-financial enterprises that grant credit, such as coffee beneficios and input suppliers, as well as credit unions and other cooperatives); and (c) informal (moneylenders, traders, friends and relatives).

Graph 10.01

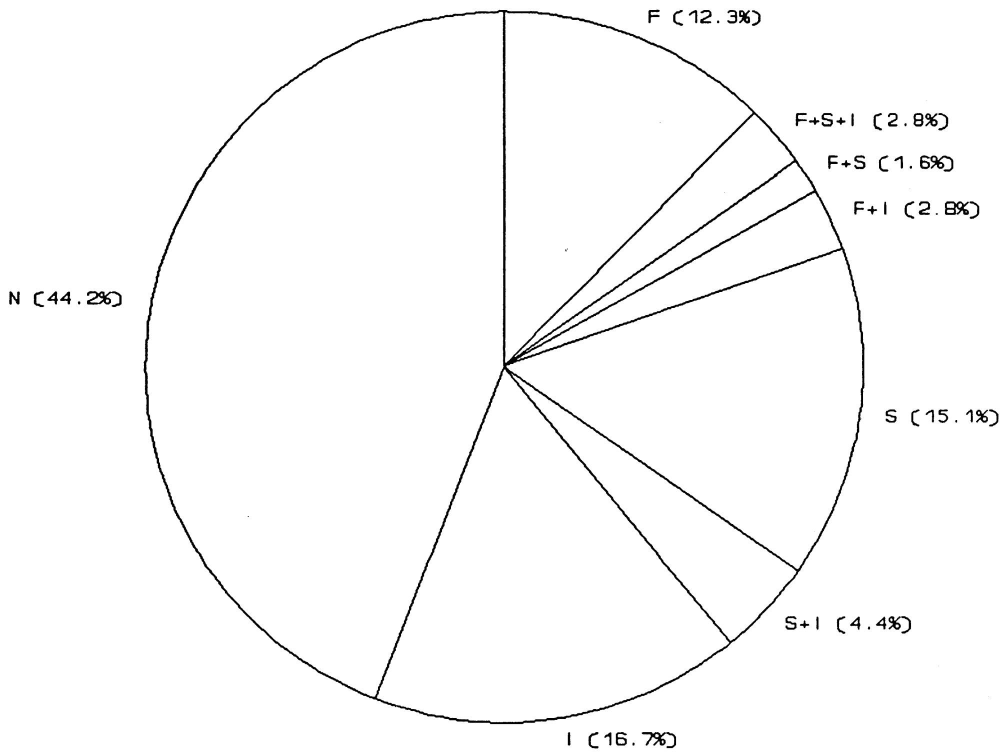
Access to Credit in Historical Perspective.



Proportion of the producers in the sample, that at some moment in their lives had access to different combinations of sources of credit, as well as those with no access.
F: Formal Sources
S: Semiformal Sources
I: Informal Sources
N: Not a Borrower

Graph 10.2

Proportion of Agricultural Producers with
Access to Credit in 1987



Proportion of the producers in the sample, with access to different combinations of sources of credit, as well as those with no access to credit in 1987.
F: Formal Sources
S: Semiformal Sources
I: Informal Sources
N: Not a Borrower

Two-thirds of the producers interviewed had received loans from the Banco Nacional de Costa Rica at least once during their lives. This was true in all three regions covered by the survey and represented an outstanding achievement of coverage among any bank in a developing country. On the average, the customers of the BNCR had received their first loan from this institution 17 years before (around 1970). They constituted, therefore, an old, established, well-known clientele. The condition of borrower is possibly transmitted from parents to children; at least two-fifths of the producers in the sample indicated that their parents had borrowed from the BNCR.

Table 10.1 Costa Rica. Access to Credit during the Producer's Life and in 1987. Survey Results (proportion of farmers in percentages)

Source	Whole-life	1987
Banco Nacional	64.7	13.2
Other Banks	49.6	6.5
Coffee Beneficios	22.1	17.0
Credit Unions	6.9	5.3
Suppliers	n.a.	4.4
Money lenders	45.4	28.7

On the average, however, these producers had received their last loan from the BNCR seven years before (around 1980), for an approximate duration of one decade for the bank-client relationship. With the crisis, an important proportion of an established clientele lost their traditional access to the BNCR. The number of new loans granted each year by the Departamento de Crédito Rural declined from 24,284 in 1976 to 15,692 in 1980. This number later increased to 19,076 in 1984, with the post-crisis recuperation, but declined to 11,873 in 1987, the year of the survey. Thus, in 1987, only 13 percent of the producers in the sample received loans from the BNCR, compared to a whole-life 65 percent. (Table 10.1)

Among those with access to credit in 1987, the BNCR had granted 17 percent of the number of loans observed in the survey and 27 percent of the corresponding loan amounts.[37] This bank's loans were larger than average and for terms longer than average. The average BNCR loan term was 24.7 months. The average interest rates charged by the BNCR (16.7 percent per year) were moderate (second lowest) within the range observed, from a 7.8 average for loans from local development associations, to a 46.6 percent average for itinerant traders.[38] The BNCR borrowers had to wait 51 days, on the average, from application to first disbursement, and four visits to the bank were necessary. About one-fifth (22 percent) of the BNCR borrowers would have preferred that the funds were available for activities other than those formally financed. Cosigners were, by far, the most frequent form of collateral.

---

[37] When loan size was weighted by loan term, in order to get "effective loan balances," the BNCR granted 29 percent of the total.

[38] A comparison of interest rates does not make a contrast of the total cost of funds for borrowers possible, in view of the very different transactions costs associated with each source of credit. An average 60 days of loan approval procedures at the banks contrasted with less than two weeks at semi-formal sources.

XI. The Banco Nacional de Costa Rica

The Banco Nacional de Costa Rica (BNCR) has been the most important state-owned bank in the National Banking System. From all perspectives, it has been the largest bank in the country.[39] It has operated the largest network of branches (its 139 agencias and sucursales accounted for 65 percent of the total for the National Banking System in the mid-1980s) and it has hired the largest banking staff (over 3,000 employees).

The BNCR has also mobilized the largest volume of funds among all the banks. In 1983-1985 it accounted for 44.1 percent of the equity capital, 43.7 percent of the liabilities, 45.4 percent of the financial earnings, and 43.4 percent of the total expenses among the four state-owned banks.[40] Table 11.01 shows its relative importance in early 1990, with respect to the four state-owned banks and with respect to all of the banks in the National Banking System.

Table 11.01 Banco Nacional de Costa Rica. Relative Importance. 1990

	Amount Billion colones	State-owned Banks %	System %
Assets	96.985	48.1	41.6
Liabilities	97.703	48.2	42.3
Net worth	5.282	47.0	31.3

Source: Auditoría General de Instituciones Financieras. La Nación, March, 1990.

---

[39] The BNCR is the largest banking institution in Central America and the Caribbean. Among the best banks in Latin America it was ranked 59th. (The Banker, October 1987).

[40] Marco A. Gonzalez-Garita, "Eficiencia y Costos de Intermediación Financiera: El Caso del Sistema Bancario Costarricense." San Jose: Unpublished report for USAID, 1986.

Created in 1914 under the name of Banco Internacional de Costa Rica, it was re-structured in 1936, under the name of Banco Nacional de Costa Rica, and it became part of the "nationalized" banks in 1948.[41] In 1950, its Money Issuing Department (Departamento Emisor) was transformed into the Central Bank of Costa Rica. The BNCR is an autonomous institution, with a Board of Directors appointed by the Executive. It enjoys independence in matters of management (administración), but since the 1970 reform it has not been autonomous in matters of policy (gobierno). It is at present organized into three large departments: Commercial, Mortgage, and Rural Credit.

The Commercial Department mobilizes deposits from the public, borrows abroad and from international agencies, and receives funds from the Central Bank, including rediscounting. It operates as a commercial bank and it possesses a Sección Financiera, that specializes in personal and consumer credit. The Mortgage Department issues mortgage bonds to fund its long-term lending operations. The BNCR is the only state-owned bank that possesses a Rural Credit Department, in charge of promoting agricultural credit and the social and economic welfare of small agricultural producers. The other three state-owned banks operate an Office for Small Farmer Credit as part of their Commercial Departments. The Rural Credit Deparment is funded by special lines of credit from the Central Bank, loans from the Commercial Department, and international donor programs. It is interesting to notice that the IDB programs have been managed by the Commercial, not the Rural Credit Department, despite the fact that they have been justified as "small farmer" credit programs, as discussed below.

---

[41] The BNCR was the first state-owned bank created in Latin America.

XII. Organizational Structure of the Banco Nacional

In the absence of effective competition, for a long time the BNCR adopted an inward-looking behavior, that was more concerned with procedures and regulations than with the quality of the services offered to its clientele. In an effort to minimize the risks of "making mistakes," innovation was systematically postponed by its managers and the emphasis placed on legal procedures. As a public enterprise, the BNCR has been subject, as well, to numerous legal limitations concerning purchasing and contracting, personnel hiring, and the level of its expenditures, that have made it a less agile agency than the private banks that began to offer it some competition in the 1980s. This competition has forced the state-owned banks to become more concerned about their viability.

The organizational structure of the BNCR has been highly "bureaucratic;" there has been a lot of regimentation and of regulation, command chains have been very long, and the supervisors (jefacturas) have been very authoritarian. This is not unexpected in a public enterprise, but it has significantly diminished the institution's flexibility. This organizational structure has gradually begun to change in the most recent years, however, as will be discussed below.[42]

The traditional organizational culture at the BNCR has been one that leads to little initiative and to a high degree of centralization. There has been very little delegation of authority. Communications, particularly between the regional offices and the headquarters (Oficina Central), have been difficult and have usually taken a lot of time. Supervisors have

---

[42] Alvaro Cedeño, "Banco Nacional de Costa Rica: Evaluación Institucional," San Jose: Unmpublished report to the USAID, under the Ohio State University Project, 1988.

been very concerned with marginal dimensions of employee performance, such as personal appearance and punctuality, since there have been no substantive goals for each job on the basis of which to evaluate performance. Indeed, measurement of performance has not been a part of management practices. In the absence of objective parameters, it has been difficult for supervisors to defend an unfavorable evaluation, and bad grades have been very infrequent.

The organization's attention has focused on inputs and on procedures, not on outputs and on the amount and quality of services provided. As a consequence, the bank's production processes have been fragmented and its customers have had to deal with separate offices for different types of service. Each worker's contribution to the bank's objectives has not been a criteron of evaluation. Effort, rather than outcome, has been the criterion. Another major managerial deficiency has been the absence of information about costs and about each unit's contribution to the bank's profits. This has prevented the use of transfer prices across departments and branches.

While the best instrument that the BNCR has had in order to organize its actions around objectives and outcomes has been its annual budget, its preparation has been mostly an accounting exercise, rather than a management effort to indicate what will be done, a what cost, and with what expected results. Although, in recent years, department chiefs have been requested to produce an annual work plan, these plans have been more an explanation of what they do, rather than a list of outcomes to achieve. All of this has been a reflection of vague institutional objectives and of confusions between ends and means.

One of the institutional features that for a long time has precluded the adoption of measurement and evaluation as management practices has been the lack of mobility (tacit tenure) of the bank's employees. This has been mostly the de facto result of the complexity of the procedures (with strong union participation) to fire or to involuntarily move an employee to another position. Promotion has been mostly automatic, as a consequence of the passage of time. This has precluded any attempts to promote efficiency. Because of its public enterprise nature, the BNCR has not been authorized to offer monetary rewards for exceptional performance. This has been particularly constraining at the highest managerial levels.

The limited qualifications of the staff at the supervisory levels (jefacturas) have represented an important institutional weakness. There are about 400 supervisory positions among the 3,380 employees of the BNCR, 246 in the regions and 154 at the bank's headquarters. In 1987, at the headquarters, 25 percent of the supervisors were professionals (with at least a licenciatura) and 25 percent possessed some other form of post-secundary-school training (bachelor's degrees or technical diplomas). Most of these supervisors still adhere to the bank's traditional management style.

XIII. BNCR Organizational Reforms

The increasing competition from the private banks in the 1980s, as well as the liberalization policies adopted by the Central Bank since 1984, have forced the BNCR and the other state-owned banks to reconsider their role and organizational structure. Before, their concerns about viability had been minimal. At the BNCR, the new attitude has meant a new view centered around the client, previously perceived merely as the user of a monopolic public service, and a new concern about outcomes. The dilemma between "public service" (practiced in the form of subsidized credit and a lenient attitude towards loan collection) and "profits" has been magnified, rather than resolved.

In November, 1987 the BNCR began a process of strategic planning that led to the initiation of a series of major organizational reforms at the bank. The process started with a workshop involving the 100 members of the bank's highest levels of its executive staff. The workshop made a preliminary identification of the institution's strengths and weaknesses, of the threats and opportunities from recent changes in the environment, and of the key strategic issues. About a dozen teams (task forces) were then asked to carry out a diagnosis of the different revenue-generating activities of the bank. Strategic options to increase the institution's profitability and to improve the bank's competitiveness were then explored. The introduction of new and the elimination of old services followed, as well as major organizational reforms. The most important changes have taken place in the areas of strategic planning, automatization, marketing, regionalization, managerial control, and renewal of the supervisory staff.

The bank's staff is not a homogeneous team. Rather, it is composed of several nuclei, with different inclinations towards innovation. Areas in which the BNCR has taken important steps in recent years have been the introduction of more sophisticated tools for funds mobilization, such as electronic transfers, automatic tellers, credit cards, and other services to enhance its current accounts. Other instruments have been introduced for a more dynamic funds mobilization. These have been the first steps away from a bias towards

credit that characterized the institution in the past. In mid-1987, the BNCR created a small "marketing unit," responsible to the General Manager, a sign of the bank's new orientation towards the client. This attention to marketing, the introduction of corporate banking practices, and the appointment of account officers have been mechanisms to alleviate the fragmentation of services that has characterized the
activities of the institution.

The management staff of the BNCR has been partially replaced. Four, rather than two, subgerencias have been created and filled with younger, dynamic professionals. Close to 100 supervisors have accepted offers for early retirement. They have been replaced with better trained staff. This has, in part, reflected the institution's major training efforts. These have included visits to banks abroad and numerous seminars and workshops. An important component has been the nine-month Banking Administration Program at INCAE. Close to 200 BNCR employees have participated in this program. The impact of these INCAE alumni on the BNCR has been substantial.

The BNCR has made progress in its major effort towards decentralization. The existing 22 sucursales, 58 agencias, and 48 cajas auxiliares have been organized in groups around 10 regional centers. Previously, there were three-member boards at each branch; now there will be a board for each regional center. Authority to approve loans has been increased at all levels. In the past, there was a large variety of branch organizational forms. The branch in Cartago was chosen as a "model branch" and its structure made uniform for others.

Atempts to measure performance have been associated with the Integrated Loan System, a computerized record of all the steps taken in processing a loan. By recording the dates on which the steps were completed, the bank has been able to measure the speed of the process, to detect delays, and to evaluate employee performance. In addition, the bank has hired a consulting firm for the implementation of a cost accounting system.

The BNCR considers as a first priority the introduction of computers, software, and other automatization tools. A new computer had been acquired in 1983 without the corresponding software. The BNCR hired programmers for the provision of software, but communication with the operations staff was poor, and the effort has been a failure. In October, 1987, after months of preparation, the bank attempted to computerize its current accounts, only to discover that the time required was more than the hours between the close of the previous day and the opening next day.

XIV. Risk Management at the Banco Nacional

The generalized impression among expert observers has been that the BNCR has not had a focused, institutionalized capacity to deal with risk, either in its (agricultural) credit decision making or in structuring its loan portfolio. Von Pischke has reported on various dimensions of this deficient risk management:[43]

(a) Credit decisions for the larger agricultural and agroindustrial loans have been made through a series of clerical steps, executed by different organizational units,

[43] J. D. Von Pischke, "Banco Nacional de Costa Rica. Risk and Portfolio Management," San Jose: Unpublished report to USAID under the Ohio State University project, 1988.

none of which has borne overall responsibility for loan quality. Instead, they have been only responsible for the completion of the step or steps that they have been required to execute.

(b) For the smaller agricultural loans, including seasonal input credit, the loan amounts have been fixed according to avíos (representative farm budgets). These avíos have ignored the large credit-demand differences that exist among farmers, as well as their diverse risk characteristics.

(c) Loans for most smallholder crops and livestock have been sized to cover 100 percent of the costs of production associated with the inputs and technology implicitly recommended by the avíos, and including the costs of labor (much of it family labor), which have amounted to between 40 and 60 percent of total costs in many farm models.

The financing of 100 percent of ideal technological practices, rather than credit geared to actual expenses, and the financing of family labor, which is a non-cash cost, have implied that credit has been frequently used as "political patronage," broadly defined, and as a "social welfare" device. The risks associated with credit granted for these purposes have been much higher than it is desirable. The long-term investment loans of the IDB programs have covered at least 80 percent of estimated costs. The remaining 20 percent has been made up, moreover, of family labor and other forms of farmer participation that have not required cash outlays.

(d) The BNCR has not kept adequate credit files. Loan documents and financial projections have been kept together in envelopes that are stored securely, but once the loans have been paid off, the corresponding envelopes have been removed from secured storage and have been eventually disposed of. As a consequence, there has neither been a collected history of credit information on individual borrowers, nor procedures for the easy retrival of past credit performance information. Instead, these procedures have been consistent with a strategy of lending primarily for a project or for a purpose, rather than to a borrower.

(e) Portfolio composition has been determined fundamentally by loan demand, as modified in the loan approval process, and by the programming guidelines implicit in the earlier tope system. It has not reflected portfolio diversification, in an effort to reduce portfolio risk. The IDB programs have targeted specific crops and activities, with no concern for risk reduction through diversification.

(f) The loan approval process has not been significantly oriented towards risk, with three exceptions. First, borrowers presently in arrears have been subject to special scrutiny and can receive new credit only in conjunction with measures to bring the account current. This has promoted, however, the rescheduling of loans, with no special concern for the added risk. Second, the state-owned banks have exchanged some credit information among themselves, in an effort to ensure that the applicant is not already indebted elsewhere. Information on credit history has not been exchanged, however. As noted, the BNCR has not even kept credit history records for its own internal use. Third, the delegados (individual loan officers) may, but have not been necessarily required to screen applications with an eye to risk. Few have been so motivated by the existing incentives within the bank.

(g) The measures of loan recovery performance used by the BNCR have consisted of the volume of arrears and the volume of loans affected by arrears, the percentage of the portfolio in arrears and affected by arrears, and the ageing of arrears. Although these are useful measures for the valuation of a portfolio, comparisons of collections to amounts due, which are a better indicator of the effectiveness of collection procedures, have not been calculated.

(h) Von Pischke believes that the BNCR's loan collection procedures have been administratively coherent. Furthermore, these procedures have been recently tightened, by reducing the periods between follow-up measures, such as sending notices, and taking legal action. Collection procedures cannot fully correct, nevertheless, for credit decisions that have not been oriented toward risk, or for the fragmentation of responsibilities regarding the relationships of the bank with its borrowers.

(i) Risk does not appear to have been a major factor motivating the recent organizational changes within the BNCR. There is a still a need for a better awareness of risk and for incentives to manage it, in order to respond rationally to risk.

(j) With Central Bank prodding, the BNCR has begun to implement procedures for tracking portfolio quality, as a basis for establishing bad debt reserves. Appropriately expanded, these procedures could permit a better risk management as well as a strategic view of credit risk by the bank's managers.

XV. Loan Procedures at the Banco Nacional

The BNCR's administrative procedures for loan evaluation and loan monitoring appear to have carried an excessive weight of documentation and of supervision, which has greatly added to the bank's operational costs. Graham has documented these excessive procedures:[44]

(a) There has been an extensive amount of paperwork associated with the loan applications, reaching 14 separate forms for standard short-term loans at the Juntas Rurales, and as much as 25 pages and 8 detailed tables for the IDB loan documents. According to Graham, in 1988, handling of such paperwork, from loan application to disbursement, took from 3 to 4 weeks in the case of short-term loans and from 6 to 8 weeks in the case of investment loans through the IDB program.

(b) Much of this documentation has been concerned, among other things, with determining whether a farmer qualifies for a subsidized small-farmer loan, at a 15 percent interest rate at the Junta Rural (or for some equivalent special program), or is elegible only for a commercial loan at the current interest rate (23 percent). In 1988, the threshold gross income was 900,000 colones. In practice, the criteria have been uneven. Some delegados have apparently felt that they can estimate this threshold if they know the farmer's acreage, the crops grown, and the ruling market prices. Off-farm sources of household income have been ignored. Other delegados

---

[44] Douglas H. Graham, "Banco Nacional de Costa Rica. Loan Procedures, Practices, and Performance." San Jose: Unpublished report for USAID under the Ohio State University project, 1988.

have used the amount of accumulated outstanding debt as a proxy for determining elegibility for the small-farmer program. The need to discriminate among potential borrowers in this fashion has added transactions costs for both the bank and the clients.

(c) The heavy incidence of documentation has been particularly associated with the use of avíos (detailed farm budget models) in order to "determine" the total costs of production of the prospective borrower. The branches have been instructed not to lend more than the costs estimated in the avío, but they would be able to lend less. In practice, however, the maximum allowed has become the norm, as very few delegados have approved less than the ceiling. This has been a reflection of the tendency to treat all borrowers equally and to avoid the hassle of differential treatment, with the accompanying charges of favoritism. These practices, however, make it impossible to build differential levels of borrower self-financing into loan contracts and to use similar tools for risk management.

XVI. Borrowing Costs for BNCR Clients

Gonzalez-Garita measured the level and components of non-interest borrowing costs for Costa Rican farmers, from survey data for 394 clients of the Banco Nacional who borrowed, during 1983, from one of ten selected branches.[45] Since many producers do not demand loans when the transaction costs are too high, the exclusion of potential borrowers

---

[45] Marco A. Gonzalez-Garita, "Farmer Borrowing Costs: The Case of Costa Rica," Master's Thesis, The Ohio State University, 1986.

from market participation because of too high costs was not observed by this survey of borrowers. Similarly, long distances and limited access, due to the absence of roads or their poor condition, prevented the completion of some of the interviews in the sample. These clients do incur in high transaction costs, precisely for the same reasons. As a consequence, Gonzalez-Garita underestimated farmer borrowing costs.

A detailed questionnaire measured fees and commissions, taxes and document costs, and travel expenses (weighted in the case of multipurpose trips). The interviews also generated information to impute the opportunity cost of the time of the borrowers and of those acting on their behalf. For these purposes, the minimum wage in agriculture was used, which underestimated true time costs.

The average level of the non-interest costs of borrowing was high, as shown in Table 16.01. It amounted to 6.8 percent of loan size and, when adjusted for loan term, it was equivalent to 11.5 percent per year. Since average interest rates were 13.6 percent, the total cost of the funds was at least 25 percent per year. This high level was surprising, given the small size of the country, the extension of the network of roads and bank branches, and the development objectives of the state-owned banks.

On the average, therefore, interest payments represented 54 percent of the total cost of the funds. In the case of smaller borrowers (less than US$ 200), interest accounted for only 25 percent of total borrowing costs, while for larger borrowers (US$ 10,000 and over) interest accounted for 86 percent of these costs. More notable was the dispersion of the non-interest borrowing costs. While interest rates ranged between 8 and 30 percent per year, non-interest costs ranged between 0.2 and 117.5 percent per year. The total cost of the funds ranged between 10.8 and 129.5 percent per year, compared to an annual rate of inflation of 26 percent. There was a four-fold difference among interest rates and a 600-fold difference among the non-interest costs of borrowing.

Non-interest borrowing costs per colon declined rapidly with loan size, from 37 percent for loans of less than US$ 200, to 2.8 percent for loans above US$ 2,000. The existence of the trade-off between the interest and non-interest costs of borrowing was confirmed. Under-equilibrium interest rates generated excess demands for credit that required strict rationing criteria (more complex procedures, additional steps, and waiting) and thereby increased borrowing costs. The strict end-use targeting for the funds, supervision, and eligibility requirements also increased borrowing costs.

Borrowing costs were higher in the case of small, basic-grain producers than for export-oriented farmers. These costs were also higher when the collateral was a cosigner rather than a mortgage. The positive elasticity of borrowing costs with respect to distance suggested the potential social gains from a further geographical expansion of the branch network and from a reduction of the required number of trips to the branch. The 394 borrowers interviewed made 3,675 trips to the branches, with a total duration of 14,700 working hours. This represented an average of 4.5 full working days for each client, usually at the time of planting. The average number of trips was 9.3 per borrower, and it ranged between 1 and 19 trips per loan. Borrowing costs were higher for those clients with previous delinquency records and lower for those who were also depositors in the bank.

Table 16.01. Costa Rica: Banco Nacional de Costa Rica. Interest and Non-Interest Farmers' Borrowing Cost (Percentages) 1983.

	Interest Rate	Average Cost	Annualized Av. Cost	Cost of Funds
Loan Size				
Less than 10,000	12.2	22.5	37.1	49.3
10,001 to 50,000	12.5	6.9	12.6	25.1
50,001 to 100,000	13.4	2.9	4.4	17.8
100,001 to 500,000	15.6	2.4	2.8	18.4
More than 500,000	20.1	2.9	3.4	23.5
End Use of the Loan				
Export Crops	15.6	4.9	5.2	20.8
Basic Grains	12.7	11.5	26.0	38.8
Other Crops	12.1	5.1	8.1	20.2
Livestock	15.8	6.8	7.0	22.9
Interest Rate				
Less than 12%	12.0	7.7	13.7	25.7
15%	15.0	3.8	3.9	18.9
18-29%	18.4	4.4	4.4	22.8
22-26.5%	23.2	3.3	4.5	27.7
Department				
Commercial	18.1	3.7	4.2	22.2
Rural	12.0	7.9	13.9	26.0
Educational Level				
No Education	12.8	12.1	19.4	32.2
Primary School	13.1	8.8	15.4	28.1
High School	14.0	4.5	5.7	19.7
University	17.3	3.0	3.7	21.0
Default Record				
Yes	13.7	8.1	14.5	25.3
No	12.8	6.1	10.0	23.9
Checking Account				
Yes	17.8	3.3	3.9	21.7
No	12.7	7.5	13.0	25.7
Savings Account				
Yes	14.1	4.0	5.5	19.6
No	13.4	7.7	13.4	26.8

Source: Gonzalez-Garita (1986).

XVII. Intermediation Costs and Bank Profitability

The private banks were nationalized explicitly to eliminate the profit-maximization motive from their objective function. Over the years the banks have earned, indeed, a minuscule rate of return on their capital, even after accrued interest not actually received on delinquent loans has been included as part of their accounting earnings.

When losses due to defaulted loans are considered, they have incurred in substantial losses most of the time. As a result, in real terms their capital declined by 54 percent between 1966 and 1976 and by an additional 57 percent between 1976 and 1983. By 1985, in real terms the accounting capital and reserves of the state-owned banks represented only 60 percent of their 1966 level. If defaulted loans were written off, the reduction in capital would be even greater.

These losses, moreover, have not been due to comparatively narrow financial margins. On the contrary, they have reflected extremely high intermediation costs in the presence of wide bank margins. When these costs are added to those imposed on depositors and borrowers, it is clear that the nationalization of the banks has required a substantial use of resources for the completion of financial transactions. This has been a waste that the country could ill afford.

As shown in Table 17.01, in 1985 non-financial intermediation costs at the BNCR represented 6.3 percent of the effective volume of funds mobilized, net of reserve requirements.[46] When accrued interest not effectively earned was added, the gross margin required for zero profits was 10.2 percent of the effective mobilization. Deposit-mobilization costs represented 2.2 percent and lending costs 4.1 percent of effective mobilization. The bank earned 18.3 percent as accrued interest on its loans and investments and paid 10.3

---

[46] Marco A. Gonzalez-Garita, "Eficiencia y Costos de Intermediacion Financiera: El Caso del Sistema Bancario costarricense," San Jose: Unpublished report to USAID, 1986.

percent on the funds mobilized. This left the bank with a margin of 8.0 percentage points to cover intermediation costs and losses due to default. Transaction costs of 10.2 percent resulted, therefore, in a loss of 2.1 percent as a proportion of effective mobilization.[47] When the reserves against default, depreciation, and staff layoff payments are added, the losses amounted to 4.4 percent of the total mobilization of funds.

[47] Minor Sagot, in "Financial Intermediation in Costa Rica: Status and Prospects," San Jose: Unpublished USAID report, 1985, claimed that the difference between the average loan and deposit interest rates at the state-owned banks was 11.3 percent, compared to 3.9 percent at the private banks.

Table 17.01 Costa Rica: Banco Nacional de Costa Rica. Financial Intermediation Costs (Million CR$). Revenues and Costs as a proportion of Effective Funds Mobilization (Percentages). 1985.

	AMOUNT	PERCENTAGE
Total Mobilization a/	23,746.3	100.0
Actual Reserves b/	3,640.7	15.3
Effective Mobilization	20,105.7	84.7
Interest and Commissions Accrued	3,685.3	18.3
Non-Financial Lending Cost	833.2	4.1
Expected Net Lending Revenue	2,852.0	14.2
Defaulted Interest	769.0	3.8
Effective Net Lending Revenue	2,083.1	10.4
Interest and Commissions Paid	2,062.8	10.3
Non-Financial Mobilization Cost	441.4	2.2
Total Mobilization Cost	2,504.2	12.5
Gross Effective Profits c/	(421.1)	(2.1)
Reserve Against Default	425.0	2.1
Depreciation Reserve	21.2	0.1
Layoff Reserve	27.4	0.1
Net Effective Profits after Reserves	(894.7)	(4.4)
Expected Intermediation Margin	1,622.5	8.1
Effective Intermediation Margin	853.5	4.2
Total Non-Financial Transaction Costs	1,274.6	6.3
Total Non-Financial Transaction Costs plus Defaulted Interest	2,043.5	10.2

a/ Average of outstanding daily balances of all funds mobilized (Deposits from the public, Bonds placed with the public, Loans and Rediscounts from the Central Banks, and Foreign Loans).
b/ Average daily balances of actual reserves held by the bank.
c/ Effective net lending revenue - Total mobilization costs.
Source: Gonzalez-Garita (1986).

XVIII. The IDB Programs: Terms and Conditions

The terms and conditions of the IDB loans for the Banco Nacional de Costa Rica have changed over time, in response to modifications in the environment and as a consequence of earlier experiences. Change has in general been slow, however, with other agencies taking the initiative for innovation. This evolution is examined here by comparing the terms and conditions associated with loan number 507/SF-CR of 1977 (known as the IDB's Fourth Stage of the Agricultural Credit Program at the BNCR) and loan number 497/OC-CR of 1985 (known as the Seventh Stage).

(1) Borrower, Guarantor, and Executing Agency

In 1977, as had been the case with earlier loans, the BNCR was the executing agency as well as the actual borrower, in its capacity as an autonomous public entity, while the Republic of Costa Rica (Central Government) served as the guarantor. In 1985, while the BNCR was still the executing agency, the Central Bank of Costa Rica was the borrower and guarantor, a practice that had been adopted in 1981. The foreign exchange risk was exclusively assumed by the Central Bank, which charged two percentage points for this service.

This change of borrower reflected the centralization of all public foreign borrowing transactions by the Central Bank, as a consequence of the debt crisis of the early 1980s. While this procedure protected the BNCR, not saddled by the foreign exchange risk during a period of macroeconomic instability, and thus able to charge the final beneficiaries interest rates that did not incorporate this component, it introduced another layer of transactions costs in loan administration (the Central Bank) and it represented an implicit subsidy for the final beneficiaries. The Central Bank was asked to perform a "development" rather than a typical monetary function, while the eventual foreign exchange losses added to the Bank's operation losses, to inflationary pressures, and to the recent difficulties in macroeconomic management.

The Central Bank was required to make the loan resources available to the BNCR under a transfer agreement, on conditions substantially similar to those approved by the IDB. With the Central Bank as the actual borrower, a debated question has been the BNCR's "monopolistic" access to the IDB funds. Several have argued that these funds should have been made available to all of the banks in the National Banking System, as has been the case with other donor programs. Competition among the banks for these funds would have increased the quality of services to the final client and the efficiency of loan administration. It has been claimed that the BNCR, on the other hand, possesses both the infrastructure of branches and the vocation towards the agricultural sector to guarantee a wider coverage of the pool of potential small and medium farmer borrowers that represented the program's target clientele.

(2) Beneficiaries

As in the earlier loans, the 1977 program was targeted to agricultural producers and cooperatives, "confining its sphere of action exclusively to the level of small producers."[48] The requirements to be met by the beneficiaries were:

(a) they must be located in the national territory;

---

[48] Inter-American Development Bank, "Costa Rica: Agriculture and Livestock Credit Program for Small Producers and Cooperatives. Project Report." Washington, D.C.: PR-800-A, 5 May, 1977, p.1.

(b) agricultural activities must be their principal source of income;

(c) they must be engaged personally and directly in such activities;

(d) they must be good administrators;

(e) the total assets of individual small farmers may not exceed the equivalent of US$ 60,000 for those in crops and US$ 120,000 for those in livestock;

(f) not less than 80 percent of a cooperative's members must meet the requirements for the individual beneficiaries; and

(g) not less than 60 percent of the volume of production handled by a cooperative must be produced by its members.

The IDB program thus employed a less restrictive definition of "small producer" than that adopted by the BNCR for its Rural Credit Department operations, limited to borrowers with gross annual incomes under US$ 6,000. The Rural Credit Department accounted for 60 percent (over 50,000) of the number of loans made by the BNCR in 1976, but disbursed only 12 percent (about US$ 41 million) of the bank's total portfolio. About 65 percent of the Rural Credit Department operations were at that time financed by special lines of credit from the Central Bank and by the USAID. In contrast with these Juntas Rurales loans, the IDB program transactions have been large, and the IDB credit programs have been perceived by Costa Ricans as "medium-size borrower activities." The IDB limits were also higher than those established by the World Bank for small producers in their agricultural development program of 1976.

The IDB indicated its unwillingness to work with the Rural Credit Department by arguing that "it experienced high levels of delinquency" and that "the interest rate charged to the final beneficiaries (8 percent) is negative, by virtue of the high operating costs of administering a large number of small loans."[49] Loans from the Rural Credit Department had an average size of US$ 800 and operating costs were estimated to amount to close to 10 percent of loan size.

Contrary to popular opinion, however, the levels of delinquency experienced by the Rural Credit Department have been much lower than elsewhere in the BNCR. As recent experience has shown, the default problem has been much more acute with respect to the larger borrowers of the Commercial Department (including those in the IDB programs).

The high operating costs of the Rural Credit Deparment, on the other hand, were due in large part to small loan size, despite the fact the procedures were simpler and more expeditious than elsewhere in the bank. The IDB program procedures, on the contrary, have been heavy and costly, even for loans of much larger size. Since it was clear that the costs to both the bank and the customers of applying these procedures to really small loans would have been prohibitive, this might have been the dominant consideration in excluding the Rural Credit Department from this "small producer" program.

Data from the 1973 Agricultural Census, available at that time, indicated that most farms in Costa Rica belonged to comparatively small holders. Indeed, 93 percent of the 77,000 existing farms were of less than 100 hectares in size. The Project Report claimed that the asset ceiling for elegibility corresponded to farms of a maximum area of 67 hec-

---

[49] Inter-American Development Bank, "Costa Rica: Agriculture and Livestock Credit Program for Small Producers and Cooperatives. Project Report." Washington, D.C.: PR-800-A, 5 May, 1977, p. 39. Note that negative here refers to the interest rates not being sufficient to cover loan administration costs, rather than to a comparison with inflation rates.

tares.[50] The expected number of beneficiaries (about 1,000) thus represented less than 4 percent of the eligible producers. This, of course, guaranteed sufficient demand for the IDB funds. The earlier program (323/SF-CR) had involved 952 loans.

While for the 1985 loan the IDB used ordinary capital resources, not restrictive as regards beneficiary characteristics, the BNCR decided to limit the subloans to producers whose total assets did not exceed US$ 200,000 (small and medium-scale farmers). This restriction still introduced additional transactions costs into the procedure, given the usually difficult, and not very accurate, valuation of a customer's total assets. In addition, the beneficiaries were expected to accept the program's technical recommendations. The Crop Development subprogram was expected to reach 1,065 farmers, while the Livestock Development subprogram was expected to reach 775 producers.

(3) <u>Loan size</u>

In the 1977 program, maximum loan size to an individual beneficiary was set at US$ 30,000 in the case of crops and US$ 60,000 in the case of livestock operations. For agricultural cooperatives and associations, the ceiling was US$ 200,000. As already discussed, these were comparatively high limits and made the IDB loans attractive for comparatively prosperous farmers and ranchers.

In the 1985 program, the ceiling on individual loans was set at US$ 75,000 and on cooperative loans at US$ 400,000. No arbitrary distinction was made between crop and livestock loans any more. On the other hand, the BNCR was advised by the IDB not to

---

[50] Inter-American Development Bank, "Costa Rica: Agriculture and Livestock Credit Program for Small Producers and Cooperatives. Project Report." Washington, D.C.: PR-800-A, 5 May, 1977, p. 15.

approve operations for amounts of less than US$ 1,500. The loan amounts to be granted were expected to cover no more than 85 percent of the cost of the investments, but permission was given to fund 100 percent of the value of the investment in the case of "low-income" farmers. The disadvantages of financing a relatively large proportion of the farmer's investment and the incentives for default (moral hazard) that this introduces have been discussed above.

(4) Loan Terms and Interest Rates

For the 1977 loan, the IDB charged the BNCR a 2 percent per year interest rate, with an amortization period of 20 years, including a four-year grace period. The loan was also subject to a credit commission of 0.5 percent per year on the undisbursed portion in foreign exchange and a one percent commission on the total for IDB inspection and supervision. The period for the total commitment of the funds by the BNCR was set at three years, and the period for total disbursement at four years. These terms exerted moderate pressures for the quick disbursement of the funds by the BNCR.

For the 1985 loan, the IDB charged the Central Bank a variable interest rate, which at the time of the agreement was 9.5 percent per year. This reflected major changes in internacional financial markets since the late 1970s. The Central Bank would charge the BNCR, in turn, two additional percentage points. The corresponding credit commission was 1.25 percent on undisbursed balances, while the inspection and supervision commission remained at one percent of the total loan amount. The amortization period was 20 years, with a five-year grace period. The period for the commitment of the funds was three years, and the period for disbursement four years, except for the last US$ 600,000 to be disbursed during the fifth year.

Under the 1977 program, on the other hand, the BNCR was authorized to make loans to farmers for up to 14 years, including grace periods of up to four years. Loans would be "subject to the annual interest rates established by the Central Bank of Costa Rica for the beneficiaries of the program." At the time of the agreement those rates ranged between 8 and 12 percent per year, for several categories of expenditures. No special requirements were introduced for the real interest rates to be positive and, as inflation accelerated in the late 1970s and early 1980s, the rates charged to the subborrowers became highly negative in real terms. This had already happened during the implementation of loan 323/SF-CR (1972-1976). The program beneficiaries had been charged 8 percent per year interest and a two percent control commission until September, 1974, when the BNCR began to charge 9 percent interest with no other financial charges. That year, however, the rate of inflation was above 40 percent.

Under the 1985 program, the BNCR was authorized to charge the "current interest rate, as established by the Central Bank." It was stipulated that the IDB, the Central Bank, and the BNCR would periodically review the interest rates to be charged to the beneficiaries. "The BNCR would onlend the funds at annual rates of 15 and 18 percent to small and medium-scale beneficiaries; these rates are positive and more than cover the expenses of the BNCR." The effective weighted interest rate that the BNCR would receive, after taking into account idle time that does not produce any return, was estimated at 15.54 percent.

This was assumed to allow the BNCR to cover financial and administration costs, estimated at 13.59 percent (!) and to obtain a differential (profit) of 1.59 percent for capitalization.[51]

Compared to the 1977 loan, the 1985 program recognized the need to keep real interest rates positive and estipulated a periodic review of the rates to be charged to the beneficiaries. By keeping these loan rates constant at the 15 and 18 percent level, however, real interest rates were allowed to become negative during some years. Furthermore, with an effective rate of 15.54 percent and financial costs at 11 percent, the BNCR was expected to enjoy a financial margin of only 4.54 percentage points, to cover administration costs, reserves for losses from default, and earn a profit. The estimated 2.59 percent for administration costs and losses from default was clearly insufficient and the whole margin might not have been enough, given the complexity of the procedures associated with the IDB programs, including the provision of technical assistance to the borrowers, and the recent experience with arrears and default. No explicit efforts were made to measure these transaction costs for the BNCR or to adjust the provisions for delinquent loans to more realistic levels, in view of the information already available.

XIX. The IDB Programs: Main Features

Two prominent features of the IDB programs have been the supply of long-term investment credit and their emphasis on the provision of technical assistance to the borrowers. In the second-half of the 1980s, the IDB funds at the BNCR were possibly the most

---

[51] Inter-American Development Bank, "Costa Rica: VII Agricultural Credit Program," Washington, D.C.: CR-0109, November, 1984, p. 18. Notice the incredible degree of "precision" attempted with those double-decimal figures.

important (if not the only) source of long-term funds for investment in agriculture available throughout the banking system. This has most likely been the most important contribution of the IDB loans to growth in the agricultural sector. The strong emphasis on technical assistance, on the other hand, has raised serious questions about program costs and effectiveness. These questions, briefly discussed in this section, have hardly been resolved.

(1) Program Size

While the IDB loan amount had been US$ 10 million in 1977, disbursed both in foreign currencies and in colones, it was US$ 35 million in 1985, in foreign currencies only, and in reflection of the increasing importance of the IDB programs for the BNCR. The total cost of the programs, including the local counterpart, had been estimated at US$ 14.4 million in 1977 and was US$ 54 million in 1985, with the IDB contributing about two-thirds of the total funds in each case. The 1985 program was expected to represent about 4 percent of the agricultural credit portfolio of the National Banking System (with the IDB funds accounting for 2.5 percent of the total) during the years of disbursement.

Over the years, the relative importance of the IDB programs at the BNCR has been substantial and growing. Towards the end of 1989, the IDB programs portfolio represented about one-fifth of the total bank's portfolio and about two-fifths of the institution's agricultural portfolio, as shown in Table 19.01. Inevitably, a contribution of this size has had a considerable impact on the institution's performance and procedures.

Table 19.01. Banco Nacional de Costa Rica: Relative Importance of the IDB Programs, September 30, 1989. (Millon colones).

	Total BNCR	IDB Programs	%
Crops	6,938	2,690	38.8
Livestock	4,639	1,763	37.4
Agriculture	11,577	4,426	38.2
Total Portfolio	21,872		20.2

(2) Loan Uses

Earlier programs had been heavily concentrated in livestock loans. In 1977, however, there had been a reduction in the import quota of beef into the United States and a drop of world beef prices. Thus, the 1977 program for the first time focused on domestic food crops (basic grains and oil seeds as well as dairy cattle and swine raising) rather than livestock (beef). The 1985 program, on the other hand, explicitly included two subprograms (Crop Development, for US$ 32.7 million, and Livestock Development, for US$ 20.9 million) as well as a technical cooperation for the institutional strengthening of the BNCR (for US$ 240,000, of which US$ 130,000 were IDB funds). Special emphasis was placed on non-traditional export crops. In this way, the IDB programs responded to the agricultural development strategies of the different Administrations at the time of each loan's negotiations.

Under the 1977 program, the BNCR was to make loans for fixed investments (buildings and permanent crops), for the purchase of breeding stock, and for the acquisition of machinery and equipment. Provisions were also made for short-term loans to cover annual outlays for planting, technical inputs, cultivation, and harvesting, and to finance annual crops when a larger output was required. In an evaluation of loan 323/SF-CR, the 1977 Mission had already discussed the problems caused by the requirement that goods be purchased from elegible countries. The report indicated how, "despite the efforts to promote the purchase of machinery, it was not possible to arouse the interest required, since the program involved small and medium livestock producers who in general needed very little machinery coming from eligible countries."[52]

It has been expected that a larger proportion of the funds available under the 1985 program would be used for investment (76 percent, as compared to 42 percent for the 1981 program: VI stage). About 90 percent of these investment funds would be used, however, primarily to finance the establishment and maintenance of permanent crops until the start of production. The demand for imported machinery has been expected to be small.

Although all agricultural categories not expressely excluded by the IDB were elegible, preference was given in 1977 to basic grains, dairy cattle, and swine raising. The 1985 program was expected, in turn, to promote non-traditional export crops. Lines were identified for permanent and semi-permanent crops (cocoa, macadamia nuts, sugar cane, rattan, flowers and ornamental plants, fruits and citrus); for livestock development (beef and dairy); and for the development of tertiary irrigation infrastructure (Tempisque).

---

[52] Inter-American Development Bank, "Costa Rica: Agriculture and Livestock Credit Program for Small Producers and Cooperatives. Project Report," Washington, D.C.: PR-800-A, May 5, 1977, p. 17.

(3) Estimation of the Demand for Credit

In 1977, the aggregate demand for credit was estimated "on the assumption that financing needs would have to grow to keep pace with the physical volume of sectoral production, which was projected at 5 percent per annum, while prices were expected to grow another 5 percent."[53] It was also assumed that small farmers would continue to receive 20 percent of the agricultural credit projected, for a total of US$ 28 million. With US$ 7.3 million available from the World Bank, the IDB program's US$ 13.8 percent were expected to be below the "projected needs." While an exercise of this kind might have been necessary to convince the IDB Board that there was sufficient demand for the funds and that disbursement would not be delayed, there has been little further use for these estimations. They certainly did not represent, in any fashion, an estimation of a demand for credit, nor could such an estimation have been easily accomplished.

The 1985 IDB Mission correctly indicated, on the other hand, that "the relationship between the program and the global demand for agricultural credit cannot be established."[54] The main reason was the presence of an underequilibrium interest rate that resulted in an excess demand for credit, whose magnitude would be very difficult to determine. Rather, on the basis of microeconomic considerations about the existence of feasible projects, the Mission attempted to justify the program. Obviously, the absence of any

---

[53] Inter-American Development Bank, "Costa Rica: Agriculture and Livestock Credit Program for Small Producers and Cooperatives. Project Report." Washington, D.C.: PR-800-A, 5 May, 1977, p. 14.

[54] Inter-American Development Bank, "Costa Rica: VII Agricultural Credit Program," Washington, D.C.: CR-0109, November, 1984, p. 11.

difficulties in disbursing all previous IDB loans could easily be considered as sufficient evidence that the new funds would be demanded, particularly in view of the credit crunch of the late 1980s, discussed above.

For the 1977 loan, the computation of the total costs of the program was based on profiles of standard farms. On the basis of a probable demand for credit for specific crops, an estimate was made of the probable number of each type of farm that would be eligible for financing. The standard budget of expenditures was then multiplied by the number of farms in each category. The "budgets for the standard farms were drawn up to include financing for most of the capital expenditures necessary to transform the structure of production of the farms." As discussed above, these exercises are mostly a waste of time and of valuable professional resources. Based on questionable assumptions, they are of little value for overall program implementation and frequently lead to implicit rationing criteria, in efforts to adjust actual disbursements to the programmed uses of the funds.

Although by 1985 these procedures had become more sophisticated, their basic assumptions were still the same. At that time, 15 model-type farms had been prepared, corresponding to the development of several permanent crops and horticulture. The set included 3 models for cocoa, 3 for macadamia nuts, 2 for rattan, 3 for carnations, 2 for sugar cane, and 2 for citrus fruits. Three models were prepared for the livestock activities. Investment and working capital needs for each model were then computed. Although carefully prepared, these farm models have relied on very rigid assumptions. Inflation, for example, has been not considered at all in the models. Uniform yields have been assumed, despite the large dispersion of observed yields even in the same region. The assumption of uniform technical coefficients for beef and dairy activities has been even more heroic. Yield variability, in time and in space, so critical for risk analysis, has not been considered.

Potentially useful as heuristic exercises, particularly to the extent that they force the credit analysts to organize their data in a logical framework, these models are costly and do not represent an acceptable substitute for good knowledge of actual situations and specific clients. There are two major risks in their generalized use. First, if taken too seriously, these models may induce too much rigidity in credit allocation, in terms of what is actually funded and how much is granted in each case. As a consequence, new crops for which the models have not been developed will not be financed, while usually too much credit will be granted to borrowers who do not fit the ideal circumstances of the models.

Second, if the initial assumptions are incorrect, and the models substitute for a careful examination of specific circumstances, the borrowers may have difficulties in behaving as assumed and default may follow. This will be particularly true if expected amortization flows are estimated on the basis of optimum yield results for all years during the life of the loan. If the application of the new technology is not successful or if exogenous circumstances (such as climate, pests) reduce yields in a given year, repayment may not proceed as expected.[55] Similarly, estimates of project profitability may be modified by changes in relative prices, not considered in the models despite the long-term nature of the investments.

---

[55] J. D. Von Pischke, "Improving Donor Intervention in Rural Finance," in Dale W Adams, Douglas H. Graham, and J. D. Von Pischke, eds. Undermining Rural Development with Cheap Credit, Boulder, Colorado: Westview Press, 1984.

(4) Evaluation of Socio-Economic Impact

The evaluation of the socio-economic impact of the loans has been an unsettled issue for the IDB programs at the BNCR. Methodological problems similar to those encountered in estimations of the demand for credit make it very difficult to successfully complete an impact evaluation of credit activities.[56] Many have recently insisted, moreover, that an evaluation of the supply-side of finance, in terms of the costs and quality of financial services, is more appropriate.[57]

The 1977 Mission reported on the results of a survey of a representative sample of 100 borrowers undertaken in 1976, on the basis of which it was concluded that most of the beneficiaries had made satisfactory progress. The gross value of production of the beneficiaries surveyed had increased 28.7 percent, at constant prices, from the start of the program to the date of the survey. As suggested, such estimates always suffer from serious methodological deficiencies. No control group was used, in order to contrast with beneficiary growth trends, and from the information gathered it is impossible to isolate the impact of the IDB program loans from other influences on output growth. On the other hand, there was almost no supply-side evaluation of the program, in terms of the cost and quality of the

---

[56] Cristina C. David and Richard L. Meyer, "Measuring the Farm Level Impact of Agricultural Loans," in John Howell, ed. Borrowers and Lenders: Rural Financial Markets in Developing Countries, London: Overseas Development Institute, 1980.

[57] Dale W Adams, "El Enigma de Proyectos de Credito Exitosos en Mercados Financieros Fracasados," in Dale W Adams, Claudio Gonzalez-Vega, and J. D. Von Pischke, eds., Credito Agricola y Desarrollo Rural: La Nueva Vision, San Jose: The Ohio State University, 1987.

financial services provided to the borrowers and the program's impact on the intermediary's institutional and financial viability.

The evaluation of the 1981 loan undertaken just before the 1985 program emphasized the numbers of beneficiaries reached and the speed of disbursement of the loan funds.[58] While the original goal had been to reach 3,300 farmers, 4,750 had actually benefited from the program by late 1984, when 85 percent of the funds had been committed, with the largest difference in connection with livestock loans. Particular satisfaction was expressed that, with 62.3 percent of the time for disbursement lapsed, 67.8 percent of the funds had been already disbursed. The prompt processing of loan applications was attributed to satisfactory compliance by the BNCR of IDB procedures.

Concern was expressed, on the other hand, that activities not expressly considered in the original analysis of the operation, although not excluded under the terms of the credit regulations, such as poultry or spices operations, had been financed. Instructions were issued to avoid financing such projects in the future. This was a clear reflection of the targeting mentality implicit in the development of farm models and of the extent to which it has prevented innovation and flexible adjustments to changing market conditions. Another example of this rigidity was the concern expressed about the financing of bovine breeding stock older than the age stipulated in the regulations, despite the fact that the producers preferred to buy proven cows, given the ecological circumstances of their enterprises.

---

[58] Inter-American Development Bank, evaluation report FO-505 prepared by the IDB Field Office in Costa Rica in August, 1984.

The 1984 evaluation contained, for the first time, considerations about the quality of the services provided to the borrowers. The time to process an application, from the date of presentation to formalization, was estimated to range from 15 to 45 days, with an average of 30 days. It was claimed that the most frequent cause of the delays was the slow presentation by the beneficiaries of the legal documents required. Although this implicitly blames the client for the delays, the problem originates with the excessive requirements of documentation that have been incorporated in the procedures.

In recent years, the BNCR has operated a Follow-Up and Evaluation Unit (USE), as part of UNDICO, the program's implementation unit described below. USE has been responsible for gathering, processing, and analyzing the data for the different measurements required by the programs. The data about the loans granted by the BNCR branches are brought together at UNDICO, where USE produces the information required for the progress reports. These half-yearly reports contain detailed information about the use of program funds by regions, crops, and uses. In addition to financial data, the reports contain physical data on investment, areas planted, animals bought, and so forth. In addition, USE conducts annual surveys with a 15 percent sampling of beneficiaries, for the socio-economic evaluation of the programs. The BNCR has encountered substantial difficulties in conducting these socio-economic evaluations. It has taken a long time for the bank to design its methodologies and systems. To this end, it was aided by a consultant from the Regional Unit of Technical Assistance (RUTA).

(5) Technical Assitance

In 1977, the IDB Missions identified low productivity as the main problem of the Costa Rican agricultural sector. In 1985 the same Missions considered that "the productivity of farming in Costa Rica continues to be comparatively low, because little water is used during the dry season of the year, drainage during the rainy season is poor, and fertilizers, improved seeds, herbicides, insecticides, fungicides, and other inputs are not widely used." These deficiencies have been related, in turn, to "the shortage of credit resources for investment, in general, and for development of basic complementary services and support infrastructure."[59]

Emphasis in the diagnosis has been, therefore, entirely "agronomical" and the solution proposed have been additional credit flows, accompanied by technical assistance. Profitability, comparative advantages, and relative price considerations have not been emphasized. This "agronomical" focus has had an important impact on the viability of the activities promoted by the IDB at the BNCR. While it has increased operation costs for the programs, it has not been entirely successful in preventing default.

Having identified low productivity as the key issue, the BNCR has been expected to provide technical assistance to all program borrowers, in an effort to increase farm productivity. Since in earlier programs, the expected contribution of technical assistance by the Ministry of Agriculture was not forthcoming, the bank itself was required to provide these services. For this purpose, the bank was asked in 1972 to set up a Technical Assistance

[59] Inter-American Development Bank, "Costa Rica: VII Agricultural Credit Program. Project Report." Washington, D.C.: IDB, November 1984.

Fund, financed with one-eighth of the interest collected. In the 1977 loan, the BNCR was asked to allocate at least two percentage points of the interest charged for this particular purpose. Since 1977, provision of this technical assistance has been the main responsibility of the program's executing unit (UNDICO).

(6) Executing Unit

The administration of the IDB programs has been the responsibility of the Programs Directing and Coordinating Unit (UNDICO), created in 1977. In recent years, UNDICO has been operating with the following structure:

(a) International Credit Section, responsible for the operation, records, disbursement, and reports with respect to foreign and donor loans;

(b) Technical Assistance Section, responsible for providing technical orientation in crops and livestock production to the operations financed and for giving specialized technical assistance to the program beneficiaries; and

(c) Follow-up and Evaluation Unit (USE), formally structured in 1984 to deal with statistics, analysis, and evaluation of the program.

In 1984, UNDICO had 34 professionals (13 veterinarians, 9 agricultural engineers specialized as animal scientists, 8 agricultural engineers specialized as plant scientists, 2 forest engineers, one irrigation technician, and one bee technician). By the end of the decade, UNDICO's staff had grown to roughly 50 well-trained professionals. While 10 professionals have been headquartered in the San Jose office, supported by 20 clerical staff, another 10 teams of roughly four members each have been spread throughout the country, for field level assistance to the BNCR delegados and to program beneficiaries.

The main activities performed by the technical assistance personnel consisted of monthly advisory visits to beneficiaries, the transfer of technology by means of lectures, meetings, and the distribution of printed materials, the application in the field of research results, cattle preventive health care, the evaluation of yields, plant health treatments, and the like.

The UNDICO teams represent a substantial investment in human resources. They no doubt represent a valuable level of expertise, that should be able to make a significant contribution to increased agricultural productivity in selected crops and livestock activities.[60] To date, however, no cost-effectiveness study of their activities has been undertaken or even proposed. In many respects, UNDICO has been the spearhead of agricultural modernization at the BNCR. The issue is, therefore, whether the current use of these valuable resources by the BNCR is cost effective, even though the IDB has presumably supported 50 percent of this expensive payroll.

XX. The IDB Programs: Performance

Two of the main issues of concern about special credit programs at public agricultural development banks have been the magnitude of the transactions costs that they impose both on the intermediary and on the final borrowers as well as the high levels of repayment delinquency frequently observed. Although to a lesser extent than in other development

[60] Douglas H. Graham, "Banco Nacional de Costa Rica: Agricultural Loan Procedures, Practices, and Performance," San Jose: Unpublished Report for the USAID, under the Ohio State University project, 1988.

banks, these have been critical questions, as well, in the case of the Banco Nacional de Costa Rica, in general, and of the IDB programs implemented by this bank.[61]

(1) Lending Costs

There have been no readily available data on the costs to the BNCR of the loan administration and portfolio allocation, technical assistance, and credit supervision activities associated with the IDB programs. The required cost accounting has not been available to the institution and it would be very difficult to separate the IDB programs costs from the general BNCR expenditures.

The most directly related source of costs is the operation of both the headquarters in San Jose and the field activities of the staff of UNDICO. Separate costs for UNDICO were available for January-September, 1989, totalling CR$ 52.4 million, to cover staff wages, materials, and non-personal services. The annual equivalent would be of the order of CR$ 74 million.[62] It was estimated that 89 percent of these costs were associated with technical assistance and 11 percent were administrative expenses.

UNDICO technicians have participated in the process of credit allocation, in the evaluation of loan applications, in visits to the client, in the provision of technical assistance, through their recommendations about loan application approvals or rejections, in the follow-up and supervision of the projects finance and, eventually, in collection efforts. Several other BNCR officials participate in the IDB program loan administration, as well, including

---

[61] The author is grateful for the assistance of Ronulfo Jimenez and Martha Castillo in the preparation of this section.

[62] Approximately US$ 1,000,000.

the branch managers, agentes and delegados, the local boards, and the bank's staff in charge of formalizing and recording credit activities. UNDICO professionals, on the other hand, participate in other non-IDB related lending activities.[63]

During the first semester of 1989, UNDICO participated in the formalization of 299 loans under the IDB 497 program and 30 loans under the IDB 96 program and co-participated in the granting of 800 small-producer loans under the USAID program. This would imply that costs per loan granted ranged between CR$ 29,141 (if all loans are considered) and CR$ 97,872 (if only the IDB loans are considered).[64] Unfortunately, it was not possible to separate the costs associated with these two different efforts. The costs of the IDB program loans were most likely closer to the upper bound of the range, given the participation of the Rural Credit Department in the processing of the USAID portfolio.

As of June, 1989, on the other hand, there were 3,921 loans in the portfolio of the IDB 497 program, the most recent and therefore most active IDB-related effort. This portfolio size thus implied a cost of CR$ 18,800 per loan. Similarly, UNDICO expenses represented 2.6 percent of an outstanding portfolio of CR$ 2,557.5 million.[65] Since, in addition to UNDICO activities, the administration of the IDB programs involves other sections of the BNCR, operation costs represent over three percentage points. This raises

---

[63] Recently, UNDICO has been sharing with the Rural Credit Department the responsibility of managing a US$ 10 million USAID small-farmer credit line. UNDICO participates in the administration of the World Bank loan for the Atlantic region, as well.

[64] The six-month costs of UNDICO were CR$ 32.2 million. Costs per loan thus ranged between US$ 400 and US$ 1,400.

[65] A portfolio of about US$ 35 million. Cost per loan in the portfolio was about US$ 260.

the question about the appropriateness of the intermediation margin earned by the BNCR on the IDB program loans.

Table 20.01 Banco Nacional de Costa Rica: Intermediation Margins for the IDB 497 Program, 1987 and 1988. (Million colones).

IDB Program 497	1987		1988	
	Million CR$	%	Million CR$	%
Average loan balances	444.4	100.0	1,289.5	100.0
IDB contribution	239.8	54.0	784.2	60.8
BNCR contribution	204.6	46.0	505.3	39.2
Earned income	93.0	20.9	299.0	23.2
Total financial costs	64.9	14.6	179.0	13.9
Interest paid IDB*	39.5	16.5	108.3	13.8
Cost BNCR funds	25.5	12.4	70.7	14.0
Earned default losses	28.1	6.3	120.0	9.3
Reserved default losses	7.3	1.6	32.0	2.5
Net earned margin		4.7		6.5

* Includes interest payments and the inspection and supervision commission. The credit commission paid IDB on undisbursed balances, not included in these figures, amounted to CR$ 25.6 million in 1987 and to CR$ 21.8 million in 1988. This reduces the effective margin earned by the BNCR.

(2) Intermediation margins

Table 20.01 presents some rudimentary estimates of the actual intermediation margins for the IDB 497 program, for 1987 and 1988. The BNCR accrued 20.9 and 23.2 percent interest on this program's portfolio, respectively. Financial costs, not including the IDB's credit commission, amounted to 14.6 and 13.9 percent. This left a gross intermediation margin of 6.3 and 9.3 percent.[66] The BNCR created reserves for default losses for 1.6 and 2.5 percent of the portfolio, resulting in net intermediation margins of 4.7 and 6.5 percent, respectively. Under these assumptions about delinquency in the portfolio, these intermediation margins appear to be reasonable. In view of actual default figures, however, such assumptions may be overly optimistic.

(3) Borrowing costs

No separate information exists, on the other hand, about the transactions costs imposed by the IDB programs on the beneficiaries. As reported above, the BNCR rural borrowers have incurred in very high non-interest transactions costs. This is not surprising, given the BNCR's public-sector bureaucratic style of centralized decision-making, that has resulted in a legacy of excessive documentation, despite inadequate consideration of risk in the management of the portfolio. Administrative procedures of loan evaluation, monitoring, and collection have carried an excessive weight of formalism and supervision that has greatly added to both bank and borrower costs. In general, former borrowers is good standing have been asked to fill out the same set of forms and update and document their collateral all

---

[66] Compared to BNCR gross intermediation margins of 8.1 percent estimated by Gonzalez-Garita, Op. cit.

over again, as if they were new borrowers. This has happened even to borrowers applying for several loans in the same year.[67] Another source of borrowing costs is the large number of trips that the customers must make to the branch if they want their loan processed in time.

Within this context of heavy transaction costs, the IDB procedures have been particularly heavy. This was a main reason not to process these loans through the Rural Credit Department, where procedures have been less complex. A potentially negative externality of the IDB programs might be, therefore, the inclination to generalize the IDB procedure, in reflection of its impecable formality, to other BNCR operations. This is a questionable proposition. Is it advisable to apply the 25-page IDB package of application forms to non-IDB loans that currently use far less paperwork? There is not evidence yet that the more sophisticated IDB procedure has actually resulted in lower default rates. There is no well-established connection between many of the IDB procedures and a well-performing portfolio.

(4) Reports

An important source of costs for the BNCR have been the numerous reports that UNDICO has to prepare for the IDB. According to the UNDICO staff, many of these reports have had a very limited usefulness as a source of strategic information for portfolio

[67] Over the past year, the BNCR has began implementation, on a pilot scale, of the libreta de credito concept (equivalent to a credit card) for preferential customers at a few branches. This has been a very serious attempt to deal with this unnecessarily undifferentiated treatment between established and new borrowers and has been very successful, thus far. It is not applicable to the IDB programs, however, where the procedure responds to the BNCR formal agreements with the IDB.

management. The half-yearly progress reports contain very detailed information about the activities financed (area planted, heads of livestock purchased), but little data of managerial interest, such as the state of delinquency in the portfolio.

Particularly costly have been the annual reports on the ex-post socio-economic impact of the 497 program. It has been estimated that preparation of this report costs the BNCR about CR$ 2 million; that is, about CR$ 500 per loan in the portfolio.[68] A full-time agricultural economists has been hired by UNDICO just to direct this effort. A survey of about 54 clients is undertaken each year.

The complexity of this report has had no relationship whatsoever with the program's management needs.[69] A reading of the report's conclusions did not reveal any discussion about the program's evaluation or important policy decisions. The report does no include any information about the quality of the services provided to the borrowers or about their opinion about these services. Would it not be less costly for the BNCR to hire a specialized consulting firm for this purpose? Nobody knows how the IDB, in turn, uses the information contained in these reports.

(5) Interest rates

The interest rates charged for the IDB program loans, as of September, 1989, ranged between 17 percent (irrigation) and 26 percent per year (working capital). The BNCR

---

[68] Approximately US$ 30,000 or about US$ 7 per loan in the portfolio.

[69] The report presents, however, a wealth of information for potential graduate students and for politicians needing to justify the program. See Banco Nacional de Costa Rica. Datos Comparativos para la Evaluacion Ex-Post Correspondientes al Segundo Año del Programa Credito BID-497/OC-CR.

charged, in turn, 15 percent to small farmers through the Rural Credit Department, 27 percent on its regular agricultural loans, and 31 percent for non-agricultural activities. In the case of small farmer subsidized credit, however, the BNCR received from the Ministry of Agriculture a compensating transfer for the differential between the rate charged and the rate paid on its six-month certificates of deposit.[70]

Given the comparatively low rate of inflation during 1989, the level of the IDB program interest rates was reasonable and positive in real terms, but the rationale for the differenciation among rates according to the purpose of the loan is questionable. These differentials have responded to the protectionist mentality that interest rates should be set according to "what the activity can pay," rather than on the basis of the opportunity cost of the funds and creditworthiness considerations. This has been an implicit way to subsidize some activities at the expense of others. Furthermore, these differentials have invited bank managers to channel credit for those purposes where they can charge the higher interest rates, with counterproductive results. It would be better to have less dispersion among interest rates and to add percentage points according to risk considerations to a few basic rates.[71]

The IDB program interest rates have incorporated, on the other hand, two percentage points to pay for the technical assistance provided by the UNDICO professionals. One

---

[70] Although the interest rates charged on the IDB program loans are lower than those charged on other types of agricultural credit, the less agile procedure of the IDB loans adds considerably to non-interest transactions costs.

[71] Minor Sagot, "Estructura de Cartera y Tasas de Interes," unpublished memo, Banco de Costa Rica, May, 1990.

question in this connection is the possibility to offer the borrowers the option to purchase such technical assistance from the BNCR or to pay for it elsewhere. There are no clear answers to this question, but some observers believe that the generalized provision of technical has burdened the banks with an atypical function. Should the BNCR continue to invest in building its own technical assistance capacity or show these technical assistance services be contracted out to outside specialists in the private market, with an appropriate margin built into the loan to cover for these expenses? An answer to this question would require, to begin with, an analysis of the cost-effectiveness of the UNDICO technical assistance teams. Some valuable economies may have been gained, in this connection, by the consolidation of technican assistance efforts around the regional centers recently created. As suggested, one alternative is to let the market determine the allocation of technical assistance service between internal and external sources.[72]

(6) Delinquency

Although there has been a consensus that the problems of arrears, repayment delinquency, and losses due to default have been significant at the BNCR during the 1980s, there have been important differences among the data sets reported by various sources. This is not surprising, in view of the adoption of several methodologies to measure delinquency. What is somewhat surprising, however, is the comparatively little attention that the IDB Missions have paid to this problem and the sustained, optimistic, implicit assumption that large doses of technical assistance are a substitute for a more effective determination

[72] The recent USAID small-farmer line of credit has required that at least 15 percent of the technical assistance provided be contracted out.

of creditworthiness and vigorous collection efforts. Interestingly enough, estimates of delinquency at the BNCR in the IDB Reports are the lowest among all of the sources surveyed.

It was already generally recognized in the early 1980s that the portfolio of the state-owned banks suffered from serious delinquency problems. Gonzalez-Garita reported that in 1983, for the four state-owned banks, loans with arrears of more than 90 days represented 23.5 percent of the total portfolio. The proportion was 21.1 percent for the BNCR. In 1985, furthermore, this proportion had increased to 33.0 percent for the four state-owned banks and to 36.0 percent in the case of the BNCR. In addition, at the BNCR, another 36.6 percent of the portfolio suffered from arrears of less than 90 days and an additional 8.2 percent had been sent to court for judicial action. As a result, only 27.6 percent of the portfolio was not contaminated and 44 percent was affected by serious delinquency.[73]

In contrast, the Report for the 1985 IDB program claimed that, as of July, 1984 delinquent installments principal plus loans in judicial collection amounted to 19.7 percent of the total portfolio. This was considered to be high, specially in view of the amounts written off against reserves for bad debts during 1982, 1983, and the first half of 1984, for over CR$ 540 million. The Mission considered that "there is not the slightest doubt that Costa Rica cannot avoid the effects of the world economic crisis of recent years, a situation that continues to be a contributing factor to the growth and persistence delinquency in the

[73] Marco Antonio Gonzalez-Garita, "Eficiencia y Costos de Intermediacion Financiera: el Caso del Sistema Bancario Costarricense," San Jose: unpublished report to the USAID, 1987.

BNCR portfolio."[74] Delinquence was also attributed to the BNCR weak collection efforts, and the institution was required to reduce the delinquent portfolio to 14 percent one year after the loan was signed, and to 10 percent after three years. The total affected portfolio was expected to drop to 40 and 25 percent, respectively.

As of December, 1987, only 41.8 percent of the portfolio of the Commercial Department was not affected by delinquency, with 28.2 percent affected by arrears of more than 90 days. Operations in judicial collection represented 4.2 percent of the total portfolio. The proportion of the Commercial Department's crop loans portfolio that was current was only 39.7 percent, and 32.8 percent in the case of livestock loans. About one-half of the number of loans were contaminated. In addition, 89.0 percent of the portfolio was affected by arrears in interest payments. [75]

In the case of the Mortgage Department, 55.1 percent of the portfolio was affected by some form of arrears and 9.3 percent was being collected through the courts. About 47 percent of the number of loans were affected. Not surprisingly, the Rural Credit Department showed the best record: 67.0 percent of the loans were not affected by arrears, with 17.9 percent affected by arrears of more than 90 days. For crop loans, 64.6 percent of the portfolio was not affected by delinquency and 73.0 percent in the case of livestock loans. Only about 39 percent of the total number of loans in the Rural Credit Department were affected.

---

[74] Inter-American Development Bank, "Costa Rica: VII Agricultural Credit Program," Washington, D.C.: PR-1399-A, November, 1984, p. 83.

[75] Banco Nacional de Costa Rica, Sección de Estudios Económicos, "Estado de Servicio de las Colocaciones," unpublished.

The rescheduling of delinquent loans has been a frequent practice at the BNCR. These loans are then classified as current, that is, without arrears. In some instances, inclusion of these cases could add substantially to an upper threshold of non-performing loans in the portfolio. These levels of delinquency and of restructuring of loans are not compatible with the viability of the BNCR. What is most needed is a credit analysis that incorporates adjustments for risk.

It has been generally believed that the IDB portfolio has suffered only from moderate forms of delinquency. The 1984 IDB Mission believed that the portfolio of programs financed in part with IDB resources "shows an acceptable degree of delinquency, much lower than that which affects the total portfolio of the BNCR. This is so in the case of the IDB programs, because UNDICO was established to administer this portfolio."[76] It was reported that 97.2 percent of the IDB-related portfolio was then current. Since there is a danger that this favorable performance may in part reflect the term structure of the portfolio (long-term loans with several years of grace periods), a very rudimentary attempt was made to explore the question of delinquency in the IDB programs portfolio. Table 20.2 reports the arrears associated with the IDB 497 program as of June, 1989, for a random sample of four branches (Guapiles, Oreamuno, Bagaces, and Santa Cruz). In addition to the large differences among branches, the most outstanding result is the significant proportion of rescheduling activity. About one-half of all loans had experienced one or more rescheduling during the semester. This intense rescheduling activity masks the true degree

---

[76] Inter-American Development Bank, "Costa Rica: VII Agricultural Credit Program. Loan Proposal," Washington, D.C.: PR-1399, November, 1984, p. 27.

of delinquency in the portfolio. Once all of this is taken into consideration, only 33 percent of the portfolio in Guapiles, 22 percent in Oreamuno, 75 percent in Bagaces, and 15 percent in San Cruz were not contaminated one way or another.

Tables 20.03 through 20.07 present, in addition, the state of the portfolio of the different IDB programs for the 1983-1987 period. Although there is no information about the aging of the arrears, it is clear that a significant portion of these portfolios suffers from some form of delinquency. The data systematically shows, in addition, an increase in the degree of delinquency and arrears as the time passes. This information suggests that about two-thirds of the IDB program portfolio has been contaminated by some form of arrears.

The BNCR has used two different indicators of delinquency. One (mora legal) compares the balances of loans with arrears in repayment of the principal with the total outstanding balances. The other (mora real) is a ratio of the installments in arrears with respect to the total portfolio. These indicators do not provide an adequate early warning about default problems. To compute a flow indicator of delinquency is almost impossible, since amortization schedules are available only in each customer's card.

The emphasis in the evaluation of loan applications has been placed, particularly in the IDB programs, on agronomic questions and the expected (theoretical) project rate of return. An evaluation of creditworthiness is not systematically undertaken.

Table 20.02 Banco Nacional de Costa Rica: Arrears in the IDB 497 Program Portfolio. Sample of Branches, for the Semester Ending June 30, 1989.

	Guápiles	Oreamuno	Bagaces	Santa Cruz
Total number of loans	17	50	6	19
Total amount outstanding CR$ million	4.62	13.18	1.66	15.88
Number of loans in arrears	1	9	0	15
Amount in arrears CR$ million	0.35	0.76	0	11.84
Amount of expected repayment	3.42	7.03	0.16	2.88
Amount repaid	2.22	4.15	0.12	2.86
Amount rescheduled	1.23	1.69	0.04	2.20
Number of reschedules	15	43	2	18
Number of loans rescheduled	10	21	2	8
Number of cases taken to court	0	10	0	3
Number of loans with problems (%)	52.9	74.0	33.3	47.4
Repayment index (%)	79.5	46.5	100.0	18.5
Adjusted repayment index (%)	32.6	21.8	74.6	14.9

Amount in arrears refers to the installments due during the semester and not paid or rescheduled.
Expected repayment refers to the installments due during the semester.
Amount repaid refers to the actual amortizations during the semester.
Amount rescheduled refers to installments due during the semester that were postponed.
Some loans were rescheduled more than once during the semester.
Repayment index is the ratio of amounts repaid over the expected repayment minus the rescheduled amounts.
Adjustment repayment index refers to the ratio of amounts repaid over expected repayment.

Table 20.03 Banco Nacional de Costa Rica: Delinquency in the IDB 323 Program Portfolio. (thousand colones).

	1983	1984	1985	1986	1987
Program 323 (1972)					
Number of loans	381	314	232	174	112
IDB	197	164	124	85	n.a.
BNCR	184	150	108	89	n.a.
Number in arrears	159	179	140	124	56
IDB	85	92	77	68	n.a.
BNCR	74	87	63	56	n.a.
Number in arrears (%)	41.7	57.0	60.3	71.3	50.0
IDB	43.1	56.1	62.1	80.0	n.a.
BNCR	40.2	58.0	58.3	62.9	n.a.
Outstanding balances	20,888	16,158	11,759	8,175	3,835
IDB	14,824	11,606	8,690	6,088	n.a.
BNCR	6,064	4,552	3,069	2,087	n.a.
Amount in arrears	2,709	2,539	2,191	1,608	1,447
IDB	1,688	1,720	1,550	1,109	n.a.
BNCR	1,021	819	641	499	n.a.
Contaminated balances	9,770	10,789	6,634	5,959	2,475
IDB	6,870	7,557	4,974	4,237	n.a.
BNCR	2,900	3,232	1,660	1,722	n.a.
Arrears/balances (%)	13.0	15.7	18.6	19.7	37.7
IDB	11.4	14.8	17.8	18.2	n.a.
BNCR	16.8	18.0	20.9	23.9	n.a.
Contaminated/portfolio (%)	46.8	66.8	56.4	72.9	64.5
IDB	46.3	65.1	57.2	69.6	n.a.
BNCR	47.8	71.0	54.1	82.5	n.a.

Table 20.04 Banco Nacional de Costa Rica: Delinquency in the IDB 507 Program Portfolio. (thousand colones).

	1983	1984	1985	1986	1987
Program 507 (1977)					
Number of loans	1,162	984	767	547	335
IDB	618	522	398	292	n.a.
BNCR	544	462	369	255	n.a.
Number in arrears	330	399	438	277	107
IDB	170	208	228	146	n.a.
BNCR	160	191	210	131	n.a.
Number in arrears (%)	28.4	40.5	57.1	50.6	31.9
IDB	27.5	39.8	57.3	50.0	n.a.
BNCR	29.4	41.3	56.9	51.4	n.a.
Outstanding balances	66,758	47,770	33,637	22,246	13,363
IDB	48,902	35,053	24,041	15,953	n.a.
BNCR	17,856	12,717	9,596	6,293	n.a.
Amount in arrears	4,135	3,997	3,976	4,247	3,083
IDB	3,200	3,109	3,044	3,357	n.a.
BNCR	935	888	932	890	n.a.
Contaminated balances	23,472	22,128	19,137	12,203	4,736
IDB	16,237	15,450	13,170	9,479	n.a.
BNCR	7,235	6,678	5,967	2,742	n.a.
Arrears/balances (%)	6.2	8.4	11.8	19.1	23.1
IDB	6.5	8.9	12.7	21.0	n.a.
BNCR	5.2	7.0	9.7	14.1	n.a.
Contaminated/portfolio (%)	35.2	46.3	56.9	54.9	35.4
IDB	33.2	44.1	54.8	59.4	n.a.
BNCR	40.5	52.5	62.2	43.3	n.a.

Table 20.05 Banco Nacional de Costa Rica: Delinquency in the IDB 678 Program Portfolio. (thousand colones).

	1983	1984	1985	1986	1987
Program 678 (1982)					
Number of loans	2,239	3,315	3,318	3,461	6,171
IDB	2,042	2,475	2,436	1,852	n.a.
BNCR	197	840	882	1,609	n.a.
Number in arrears	570	1,400	1,857	2,141	1,069
IDB	514	996	1,231	899	n.a.
BNCR	56	404	626	1,242	n.a.
Number in arrears (%)	25.5	42.2	56.0	61.9	17.3
IDB	25.2	40.2	50.5	48.5	n.a.
BNCR	28.4	48.1	71.0	77.2	n.a.
Outstanding balances	339,843	437,605	457,050	382,507	615,664
IDB	316,229	346,841	352,134	261,198	n.a.
BNCR	23,614	90,764	104,916	121,309	n.a.
Amount in arrears	10,527	51,978	105,330	119,773	128,252
IDB	4,654	27,516	53,906	49,209	n.a.
BNCR	5,873	24,462	51,424	70,564	n.a.
Contaminated balances	92,285	177,362	203,409	227,104	177,934
IDB	90,704	158,858	182,623	138,523	n.a.
BNCR	1,581	18,504	20,786	88,581	n.a.
Arrears/balances (%)	3.1	11.9	23.0	31.3	20.8
IDB	1.5	7.9	15.3	18.8	n.a.
BNCR	24.9	27.0	49.0	58.2	n.a.
Contaminated/portfolio (%)	27.2	40.5	44.5	59.4	28.9
IDB	28.7	45.8	51.9	53.0	n.a.
BNCR	6.7	20.4	19.8	73.0	n.a.

Table 20.06 Banco Nacional de Costa Rica: Delinquency in the IDB 96 Program Portfolio. (thousand colones).

	1983	1984	1985	1986	1987
Program 96 (1982)					
Number of loans	1,490	1,838	1,941	1,618	1,522
IDB	852	1,062	1,117	943	n.a.
BNCR	638	776	824	675	n.a.
Number in arrears	433	878	1,146	857	654
IDB	232	507	651	511	n.a.
BNCR	201	371	495	346	n.a.
Number in arrears (%)	29.1	47.8	59.0	53.0	43.0
IDB	27.2	47.7	58.3	54.2	n.a.
BNCR	31.5	47.8	60.1	51.3	n.a.
Outstanding balances	499,253	607,837	654,723	510,730	480,980
IDB	273,203	354,923	386,427	309,807	n.a.
BNCR	226,050	252,914	268,296	200,923	n.a.
Amount in arrears	7,765	16,656	63,190	66,682	100,010
IDB	1,154	7,504	35,405	39,869	n.a.
BNCR	6,611	9,152	27,785	26,813	n.a.
Contaminated balances	169,493	327,942	428,931	339,816	224,905
IDB	89,647	193,071	254,414	207,245	n.a.
BNCR	79,846	134,871	174,517	132,571	n.a.
Arrears/balances (%)	1.6	2.7	9.7	13.1	20.8
IDB	0.4	2.1	9.2	12.9	n.a.
BNCR	2.9	3.6	10.4	13.3	n.a.
Contaminated/portfolio (%)	33.9	54.0	65.5	66.5	46.8
IDB	32.8	54.4	65.8	66.9	n.a.
BNCR	35.3	53.3	65.0	66.0	n.a.

Table 20.07 Banco Nacional de Costa Rica: Delinquency in the IDB 497 Program.

	December, 1987		June, 1989	
	Million CR$	%	Million CR$	%
Number of loans	1,184	100.0	3,997	100.0
current	1,074	90.7	3,183	79.6
in arrears	110	9.3	814	20.4
Outstanding balances	1,028.9	100.0	2,657.5	100.0
Balances with arrears	146,8	14.3	546.4	20.6
Amount of arrears	127.6	12.4	169.1	6.4
Interest in arrears	n.a.	n.a.	84.8	3.2

(7) Technical Cooperation

The 1985 program included US$ 240,000 for a non-reimbursable technical cooperation, designed to strengthen the BNCR's institutional capacity through:

(a) improvement of the identification of new investment areas and analysis of investment projects so as to increase the efficiency of the BNCR participation in "development" programs;

(b) the strengthening of the financial and administrative procedures of the BNCR through the improvement of its electronic data processing system; and

(c) to assist in the process of financial and socio-economic analysis of the projects.

For this technical cooperation, the BNCR contracted two consultants specialized in the social and economic analysis of projects and in electronic data processing systems, for a period of 18 months each. Resources were also provided for short courses and seminars in Costa Rica.

The emphasis of the technical cooperation was placed, as elsewhere, on the planning and targeting activities associated with supervised credit, in order to identify and evaluate investment projects. The focus has been mostly agronomic. In addition, the technical cooperation has stressed the ex-post socio-economic evaluation of the situation of the beneficiaries, in which the IDB has been very interested, but which is of very marginal use for managerial purposes at the BNCR. Most of the effort has been concentrated, therefore, at USE within UNDICO, an enclave within the bank, with little impact on strengthening the institutional viability of the Banco Nacional de Costa Rica.

Statistical Appendix

Cuadro 1.01 Banco Nacional de Costa Rica, Departamento de Crédito Rural. Número, Monto Real y Tamaño Promedio Real de los Préstamos Nuevos Otorgados durante el Año. 1950-1988.

Año	Número de Préstamos	Monto ('000 Colones de 1978)	Tamaño Promedio
1950	17,752	57,705	3,251
1951	19,403	69,606	3,587
1952	19,994	90,293	4,516
1953	18,006	91,563	5,085
1954	16,838	89,049	5,289
1955	16,967	94,467	5,568
1956	17,625	108,824	6,174
1957	16,675	105,346	6,318
1958	15,275	102,263	6,695
1959	15,797	118,417	7,496
1960	15,989	157,818	9,870
1961	16,007	142,550	8,906
1962	19,293	216,561	11,225
1963	16,107	165,066	10,248
1964	16,209	199,551	12,311
1965	17,767	242,230	13,634
1966	11,791	138,314	11,731
1967	16,063	210,347	13,095
1968	14,037	180,408	12,852
1969	11,996	184,600	15,388
1970	13,148	193,644	14,728
1971	17,965	274,367	15,272
1972	15,825	243,399	15,380
1973	16,208	260,853	16,094
1974	19,841	241,192	12,156
1975	23,436	203,547	8,685
1976	24,284	226,176	9,314
1977	21,351	210,233	9,847
1978	19,861	235,122	11,838
1979	18,721	199,113	10,636
1980	15,692	135,259	8,620
1981	18,938	126,534	6,682
1982	22,198	108,691	4,896
1983	18,935	131,178	6,928
1984	19,076	105,329	5,522
1985	16,821	83,603	4,970
1986	18,326	111,917	6,107
1987	11,873	83,033	6,893
1988	13,821	110,711	8,010

Fuentes: González Vega (1973) y Banco Nacional de Costa Rica, información sin publicar.

Cuadro 1.02 Banco Nacional de Costa Rica, Departamento de Crédito Rural. Número, Monto Real y Tamaño Promedio Real de los Saldos de Colocaciones al Final del Año. 1950-1987.

Año	Número de Préstamos	Saldos ('000 Colones de 1978)	Saldo Promedio
1950	21,547	67,763	3,145
1951	23,712	90,231	3,805
1952	24,998	112,643	4,506
1953	24,794	123,549	4,983
1954	24,877	124,429	5,002
1955	26,456	138,199	5,224
1956	n.d.	164,089	n.d.
1957	28,187	168,917	5,993
1958	n.d.	n.d.	n.d.
1959	n.d.	n.d.	n.d.
1960	28,075	229,404	8,171
1961	n.d.	268,006	n.d.
1962	35,190	339,040	9,635
1963	36,071	350,912	9,728
1964	37,732	382,532	10,138
1965	41,218	469,137	11,382
1966	39,141	436,070	11,141
1967	39,964	443,510	11,098
1968	38,465	433,441	11,269
1969	37,252	440,892	11,835
1970	38,015	454,416	11,954
1971	41,992	502,971	11,978
1972	43,085	501,469	11,639
1973	42,880	438,280	10,221
1974	45,715	385,316	8,429
1975	51,173	378,516	7,397
1976	53,234	397,120	7,460
1977	51,261	381,215	7,437
1978	49,260	399,505	8,110
1979	48,165	347,724	7,219
1980	45,563	292,113	6,411
1981	44,552	153,276	3,440
1982	39,344	108,973	2,770
1983	35,591	146,321	4,111
1984	36,650	140,214	3,826
1985	37,971	127,156	3,349
1986	33,731	135,687	4,023
1987	26,178	125,718	4,802

Fuentes: González Vega (1973) y Banco Nacional de Costa Rica, información sin publicar.

Cuadro 1.03 Costa Rica: Sistema Bancario Nacional. Composición de los Saldos de las Colocaciones al Final del Año, por Sector de Actividad Económica (Porcentajes). 1956-1987.

Año	Agricultura	Ganadería	Industria	Otros a/
1956	40.1	13.7	12.4	33.8
1957	46.6	11.7	10.4	31.2
1958	43.9	13.4	11.0	31.7
1959	43.3	15.4	11.8	29.6
1960	43.6	16.6	12.1	27.7
1961	42.3	17.1	13.8	26.8
1962	39.9	17.7	15.4	27.0
1963	39.6	15.3	15.4	29.7
1964	37.7	15.6	16.7	30.0
1965	37.1	17.4	17.5	28.0
1966	37.5	18.4	16.7	27.4
1967	35.2	19.7	18.1	27.0
1968	34.6	21.4	18.5	25.5
1969	33.5	23.2	19.5	23.7
1970	33.9	23.2	19.9	23.0
1971	29.3	24.7	17.8	28.2
1972	26.0	26.1	18.3	29.6
1973	22.9	30.2	21.7	25.2
1974	20.7	27.3	25.3	26.7
1975	22.5	23.3	25.7	28.5
1976	23.8	22.7	25.2	28.3
1977	21.8	22.6	26.0	29.6
1978	22.1	21.4	26.5	30.0
1979	20.3	21.2	24.7	33.8
1980	21.2	21.8	22.4	34.6
1981	24.7	20.2	22.3	32.8
1982	27.5	22.6	24.6	25.2
1983	31.4	23.4	26.6	18.7
1984	31.4	23.0	27.6	18.0
1985	22.9	22.4	32.4	22.3
1986	20.9	19.5	32.0	27.6
1987	19.8	16.5	31.6	32.1

a/ Incluye: comercio, electricidad, servicios, vivienda, crédito personal, crédito externo y crédito no clasificado.

Fuente: Computado con base en Banco Central de Costa Rica, Crédito y Cuentas Monetarias, varios años.

Cuadro 1.04 Costa Rica: Sistema Bancario Nacional. Tasas Anuales de Crecimiento Real de los Saldos de las Colocaciones, por Sector de Actividad Económica (Porcentajes). 1957-1987.

Año	Total	Agricultura	Ganadería	Industria	Otros a/
1957	18.3	37.4	1.5	0.1	9.3
1958	4.3	-1.8	19.2	9.6	6.1
1959	21.8	20.2	40.2	30.6	13.5
1960	10.4	11.3	18.6	13.9	3.3
1961	3.9	0.7	7.2	18.5	0.5
1962	4.8	-1.0	8.7	16.5	5.6
1963	20.8	19.8	4.4	20.6	33.1
1964	13.7	8.1	16.1	23.8	14.5
1965	13.2	11.4	25.8	18.5	6.0
1966	-0.1	1.2	5.7	-4.8	-2.5
1967	2.2	-4.2	9.3	11.0	0.7
1968	0.8	-1.0	9.6	3.0	-4.6
1969	1.6	-1.4	10.4	7.2	-5.6
1970	8.0	9.2	8.0	10.1	4.7
1971	23.6	6.9	31.4	10.3	51.7
1972	5.0	-6.8	10.9	8.2	10.2
1973	-11.8	-22.3	2.1	4.2	-24.8
1974	3.1	-6.9	-6.7	20.2	9.2
1975	17.3	27.6	-0.1	19.3	25.4
1976	12.1	18.5	9.4	9.9	11.2
1977	9.7	0.4	8.9	13.4	14.7
1978	13.5	15.3	7.6	15.4	15.0
1979	-3.4	-11.4	-4.4	-9.8	8.7
1980	-5.7	-1.4	-2.8	-14.5	-3.6
1981	-49.5	-41.1	-53.3	-49.7	-52.1
1982	-22.5	-13.7	-13.0	-14.4	-40.4
1983	43.0	63.2	48.0	54.2	5.9
1984	11.9	11.8	9.9	16.1	8.0
1985	1.0	-26.5	-1.5	18.8	25.1
1986	4.2	-4.6	-9.3	2.9	28.8
1987	11.8	5.5	- 5.4	10.5	30.0

a/ Incluye: comercio, electricidad, servicios, vivienda, crédito personal, crédito externo y crédito no clasificado.

Fuente: Computado con base en Banco Central de Costa Rica, Crédito y Cuentas Monetarias, varios años. Montos deflatados con el Indice de Precios al por Mayor.

Cuadro 1.05 Costa Rica. Sistema Bancario Nacional: Indices de los Saldos de las Colocaciones, en Términos Reales (1978:100), según Sector de Actividad Económica. 1956-1987.

Año	Agricultura	Ganadería	Industria	Comercio	Total
1956	29.6	10.4	7.6	41.4	16.3
1957	40.7	10.6	7.6	42.3	19.3
1958	39.3	12.6	8.4	48.1	20.1
1959	48.0	17.7	10.9	50.8	24.5
1960	53.4	21.0	12.2	45.0	27.1
1961	53.8	22.5	14.4	43.7	28.1
1962	53.2	24.5	16.8	41.4	29.5
1963	63.8	25.5	19.0	44.8	35.6
1964	68.9	29.6	23.2	45.2	40.5
1965	76.8	37.3	27.4	41.0	45.9
1966	77.7	39.4	25.8	36.5	45.8
1967	74.5	43.1	29.2	26.2	46.8
1968	73.7	47.2	29.4	22.0	47.2
1969	72.6	52.1	31.8	18.3	48.0
1970	79.3	56.2	35.3	21.6	51.8
1971	84.8	73.9	40.0	57.2	64.0
1972	79.0	82.0	43.7	67.3	67.2
1973	61.4	83.7	48.5	47.2	60.1
1974	57.2	78.2	58.4	69.8	61.2
1975	72.9	78.0	69.6	89.6	71.1
1976	86.4	85.3	76.4	93.6	80.3
1977	86.7	92.9	86.6	94.8	88.1
1978	100.0	100.0	100.0	100.0	100.0
1979	88.6	95.6	90.2	128.5	96.6
1980	87.4	93.6	77.2	131.8	91.1
1981	51.5	43.4	38.8	66.1	46.0
1982	44.5	37.8	33.2	46.6	35.7
1983	72.5	55.9	51.2	42.4	51.0
1984	81.1	61.4	59.5	45.8	57.1
1985	59.6	60.5	70.6	70.3	57.7
1986	54.4	58.8	72.7	103.5	60.1
1987	57.8	51.9	80.3	146.2	67.2

Fuente: Computado con base en Banco Central de Costa Rica, Crédito y Cuentas Monetarias, varios años. Montos deflatados con el Indice de Precios al por Mayor.

Cuadro 1.06 Costa Rica. Sistema Bancario Nacional: Indices de los Préstamos Nuevos Otorgados durante el Año, en Términos Reales (1978:100), según Sector de Actividad Económica. 1969-1987.

Año	Agricultura	Ganadería	Industria	Comercio	Total
1969	75.6	50.4	37.3	27.7	48.9
1970	94.6	50.2	45.9	35.3	56.8
1971	94.5	86.2	56.4	111.2	74.0
1972	83.0	86.4	55.1	110.5	72.6
1973	80.8	103.0	68.1	52.6	73.0
1974	87.3	88.1	85.9	118.9	80.4
1975	102.7	65.3	90.6	133.9	86.0
1976	101.6	77.0	88.5	110.3	89.8
1977	91.8	93.5	91.8	93.5	90.8
1978	100.0	100.0	100.0	100.0	100.0
1979	88.5	97.0	68.1	172.9	91.9
1980	70.2	73.4	45.9	160.6	60.5
1981	57.5	38.3	32.7	102.9	42.9
1982	76.0	45.4	37.2	58.8	39.0
1983	106.9	65.6	48.0	59.8	58.9
1984	86.0	50.6	48.5	92.5	51.3
1985	56.2	23.3	55.7	135.2	45.6
1986	72.4	33.6	59.9	189.6	57.8
1987	44.3	29.4	68.8	217.8	64.0

Fuente: Computado con base en Banco Central de Costa Rica, Crédito y Cuentas Monetarias, varios años. Montos deflatados con el Indice de Precios al por Mayor.

Cuadro 1.07 Costa Rica: Sistema Bancario Nacional. Préstamos Nuevos Otorgados durante el Año. Composición por Sectores de Actividad Económica (Porcentajes). 1973-1987.

Año	Agricultura	Ganadería	Industria	Comercio	Otros a/
1973	24.8	20.8	29.4	2.8	22.3
1974	24.3	16.1	33.7	5.8	20.1
1975	26.7	11.2	33.2	6.1	22.8
1976	25.3	12.6	31.0	4.8	26.2
1977	22.6	15.1	31.8	4.0	26.3
1978	22.4	14.7	31.5	3.9	27.5
1979	21.6	15.5	23.3	7.4	32.2
1980	25.2	17.1	19.7	8.6	29.5
1981	31.4	12.8	19.0	7.5	29.3
1982	40.7	17.8	23.4	4.6	13.5
1983	40.6	16.4	25.7	4.0	13.4
1984	37.6	14.5	29.8	7.1	11.0
1985	27.6	7.5	38.5	11.7	14.7
1986	28.0	8.5	32.6	12.9	18.0
1987	15.5	6.7	32.6	12.9	18.0

a/ Incluye: electricidad, servicios, vivienda, crédito personal, crédito externo y crédito no clasificado.

Fuente: Computado con base en Banco Central de Costa Rica, Crédito y Cuentas Monetarias, varios años.

Cuadro 1.08 Costa Rica: Sistema Bancario Nacional. Tasas Anuales de Crecimiento Real del Monto de los Préstamos Nuevos Otorgados cada Año (Porcentajes). 1970-1987.

Año	Total	Agricultura	Ganadería	Industria	Comercio
1970	16.0	24.6	-3.4	22.9	27.7
1971	31.0	-0.5	86.3	22.9	215.1
1972	-1.6	-14.7	5.5	-2.4	-0.6
1973	12.5	10.6	48.1	23.6	-52.4
1974	10.1	8.1	-14.5	26.3	126.1
1975	7.0	17.7	-25.9	5.4	12.6
1976	4.4	-1.1	17.9	-2.3	-17.6
1977	1.1	-9.6	21.4	3.7	-15.2
1978	10.1	8.9	6.9	9.0	6.9
1979	-8.1	-11.5	-3.0	-32.0	72.9
1980	-20.2	-6.8	-12.3	-32.5	-7.1
1981	-26.3	-8.2	-44.6	-28.9	-35.9
1982	-7.3	20.3	29.1	13.7	-42.9
1983	17.6	17.2	7.9	29.2	1.8
1984	-13.0	-19.5	-22.9	1.0	54.7
1985	-11.1	-34.7	-53.9	14.9	46.2
1986	26.9	28.7	44.1	7.5	40.2

Fuente: Computado con base en Banco Central de Costa Rica, Crédito y Cuentas Monetarias, varios años. Montos deflatados con el Indice de Precios al por Mayor.

Cuadro 1.09 Costa Rica: Sistema Bancario Nacional. Razones de los Préstamos Nuevos de Cada Año con Respecto al Valor Agregado, por Sector de Actividad Económica. 1973-1987.

Año	Agricultura	Ganadería	Industria	Total
1973	44.0	73.6	35.8	22.9
1974	50.7	71.1	44.9	27.0
1975	49.6	56.8	45.0	27.7
1976	42.3	64.7	40.4	25.6
1977	28.3	76.0	36.7	21.9
1978	33.0	66.1	38.1	22.7
1979	33.7	65.5	26.9	21.1
1980	33.4	64.9	18.5	17.4
1981	27.0	36.7	15.5	15.4
1982	37.2	62.6	20.0	17.4
1983	46.7	65.3	22.8	19.5
1984	32.3	48.5	19.6	14.9
1985	21.3	20.7	20.4	11.7
1986	20.3	31.8	20.0	13.0
1987	25.2	43.1	25.2	14.4

Fuente: Computado con base en datos del Banco Central.

Cuadro 1.10 Costa Rica: Sistema Bancario Nacional. Razones de los Saldos de las Colocaciones al Final de Cada Año con Respecto al Valor Agregado, por Sector de Actividad Económica. 1973-1987.

Año	Agricultura	Ganadería	Industria	Total
1973	47.5	124.9	30.8	27.0
1974	46.6	130.2	36.4	29.2
1975	46.4	131.3	38.7	30.7
1976	46.4	136.1	38.3	30.0
1977	34.5	143.4	38.0	27.7
1978	43.0	126.7	42.2	29.9
1979	47.0	132.2	42.2	31.3
1980	47.5	140.2	35.4	29.4
1981	32.4	87.8	27.5	23.4
1982	27.5	86.9	23.0	19.0
1983	40.3	104.2	26.4	21.7
1984	40.4	114.9	27.1	22.2
1985	29.3	102.0	28.4	19.4
1986	21.2	101.4	27.4	18.0
1987	24.2	113.5	33.2	19.6

Fuente: Computado con base en datos del Banco Central.

Gráfico 1.01

Banco Nacional de Costa Rica
Departamento de Crédito Rural
Número de Préstamos Nuevos
1950-1988
(miles)

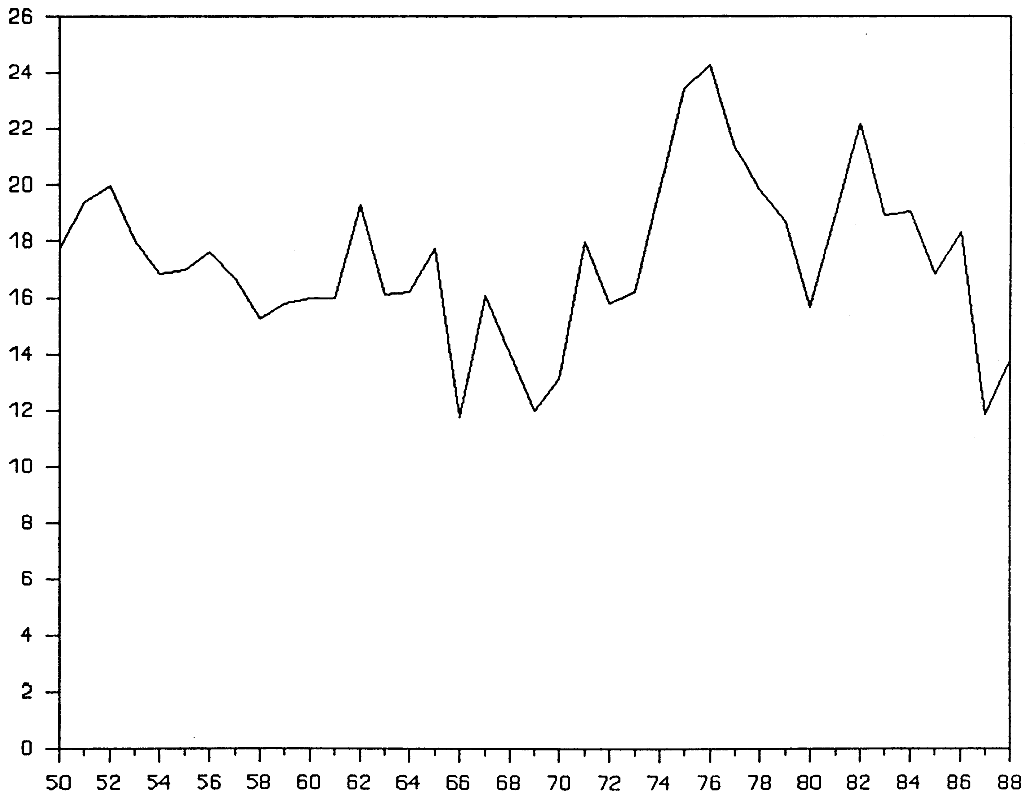


Gráfico 1.02

Banco Nacional de Costa Rica
Departamento de Crédito Rural
Monto Real de los Préstamos Nuevos
1950-1988
(millones de colones de 1978)

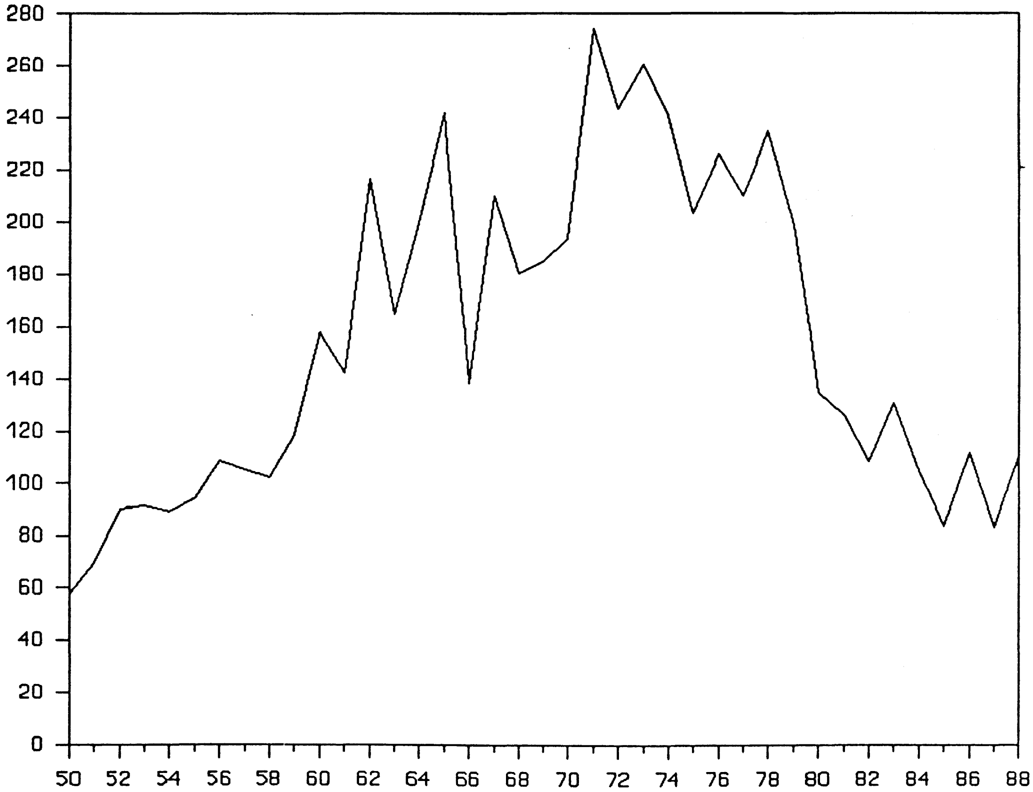


Gráfico 1.03

Banco Nacional de Costa Rica
Departamento de Crédito Rural
Tamaño Promedio Real de los Préstamos Nuevos
1950-1988
(miles de colones de 1978)

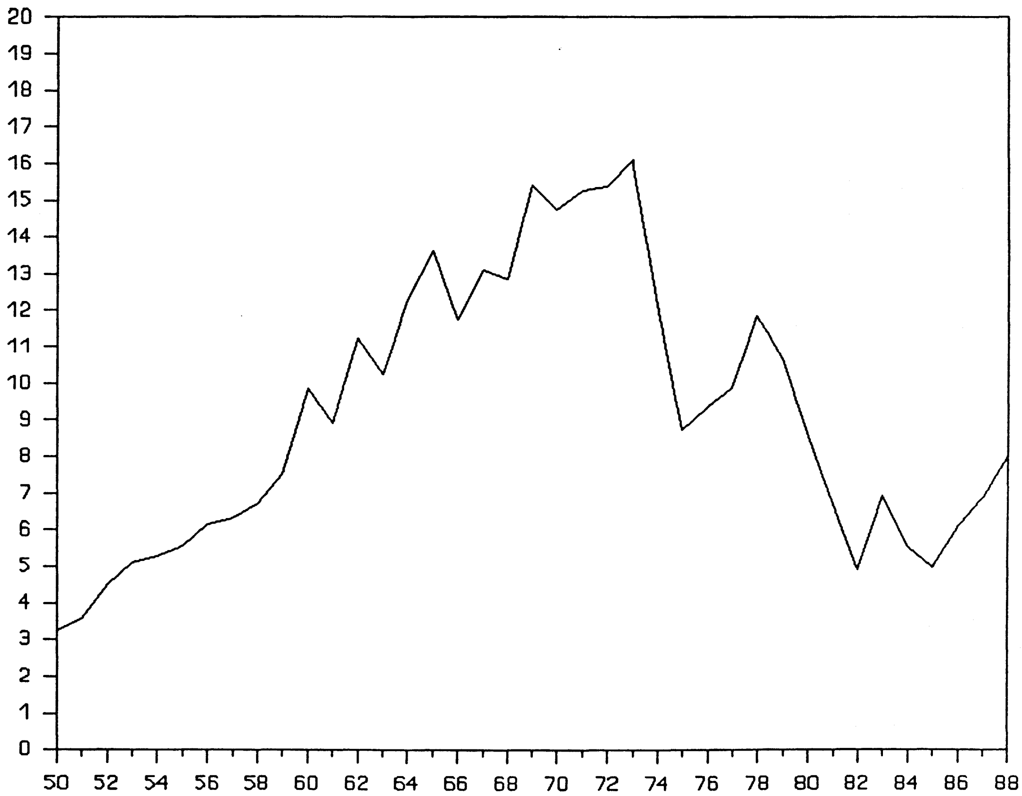


Gráfico 1.04

Banco Nacional de Costa Rica
Departamento de Crédito Rural
Número de Saldos de Préstamos
1950-1987
(miles)

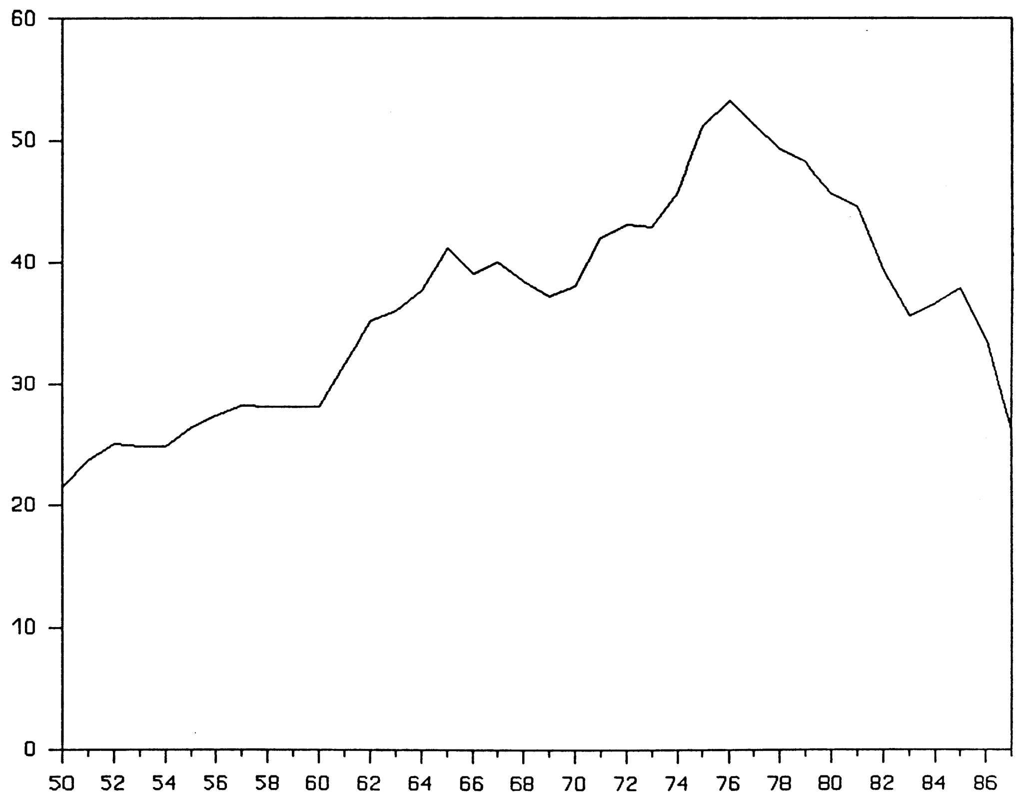


Gráfico 1.05

Banco Nacional de Costa Rica
Departamento de Crédito Rural
Monto Real de Saldos de Préstamos
1950-1987
(millones de colones de 1978)

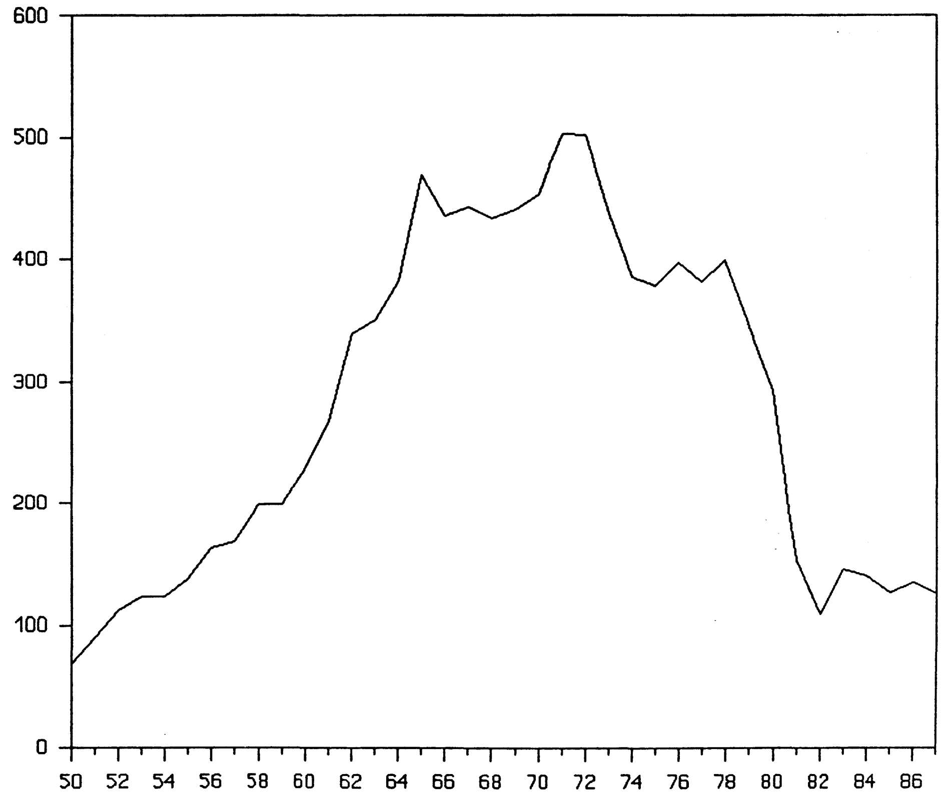


Gráfico 1.06

Banco Nacional de Costa Rica
Departamento de Crédito Rural
Tamaño Promedio Real de Saldos de Préstamos
1950-1987
(miles de colones de 1978)

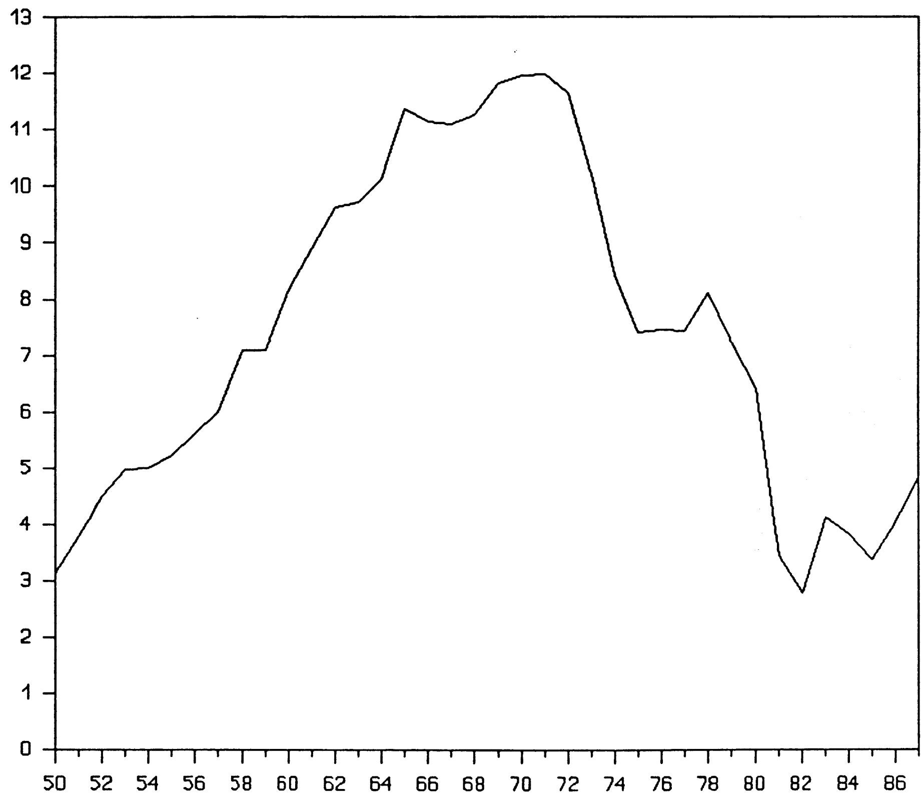


Gráfico 1.07

Sistema Bancario Nacional
Saldo de las Colocaciones
Participación Relativa de la Agricultura
1956-1987
(Porcentajes)

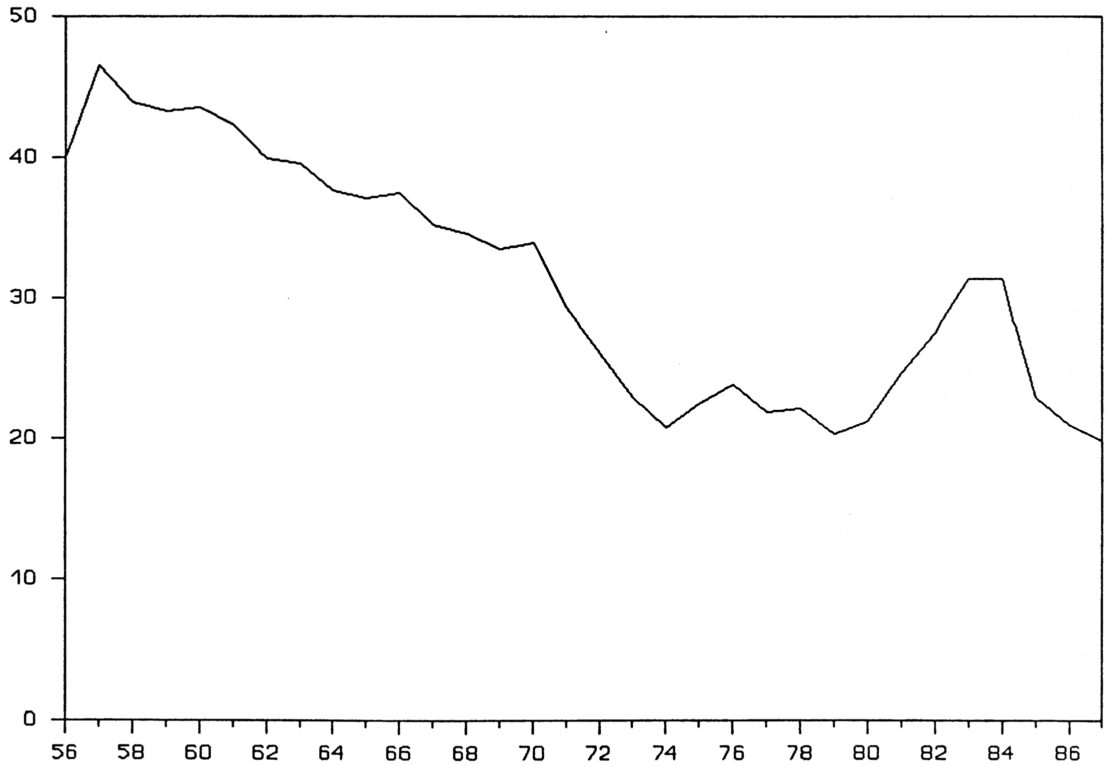


Gráfico 1.08

Sistema Bancario Nacional
Saldo de las Colocaciones
Participación Relativa de la Ganadería
1956-1987
(Porcentajes)

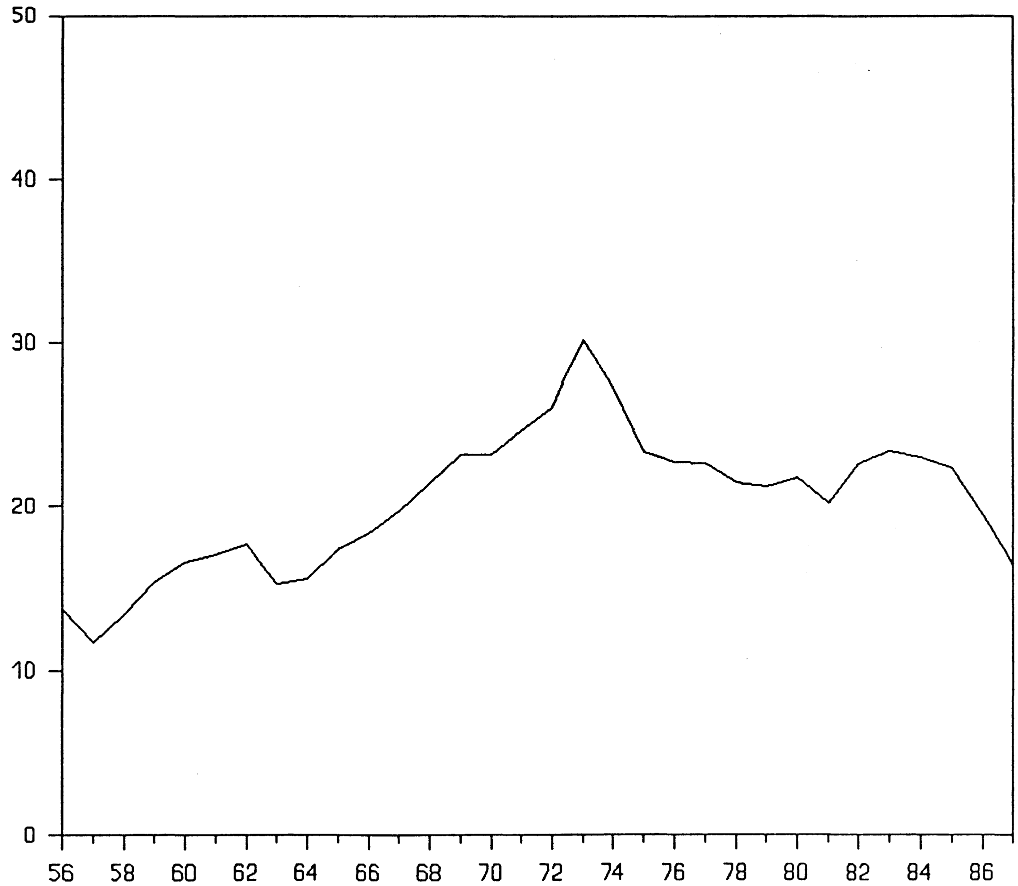


Gráfico 1.09

Sistema Bancario Nacional
Indice de los Saldos de las Colocaciones Totales
1950-1987
(Términos Reales, 1978:100)

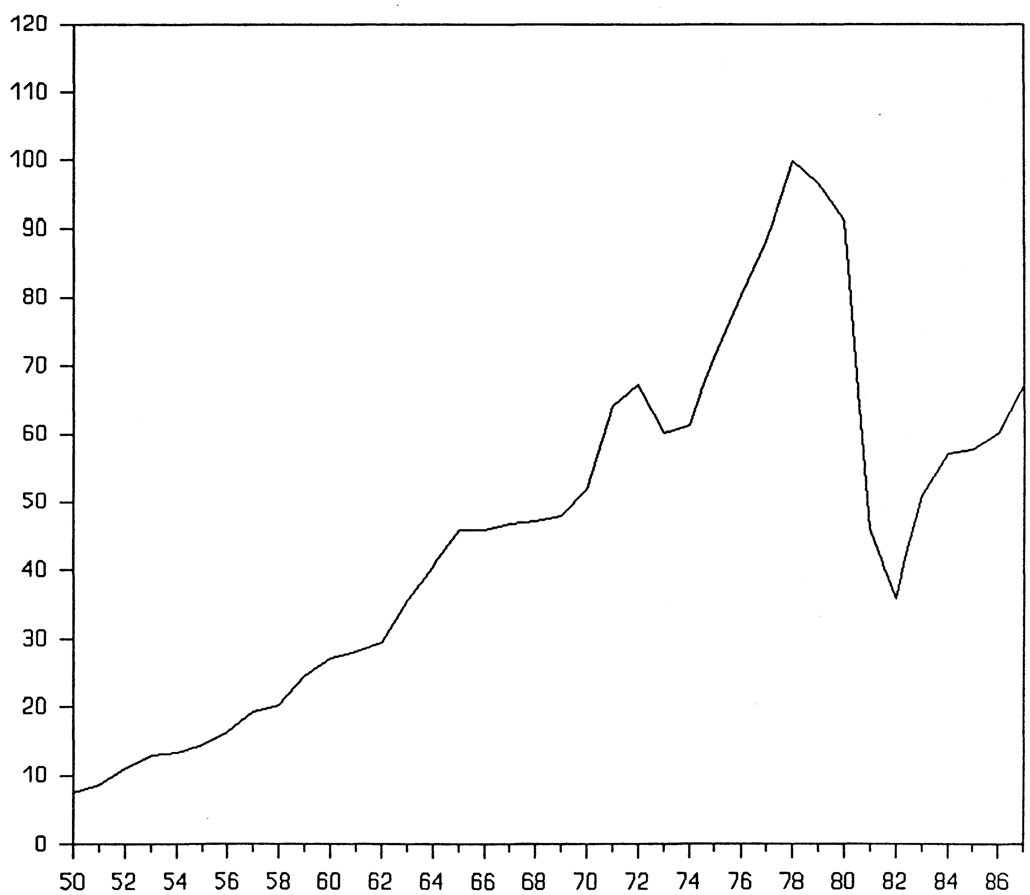


Gráfico 1.10

Sistema Bancario Nacional
Indice de los Saldos de las Colocaciones para la Agricultura
1956-1987
(Términos Reales, 1978:100)

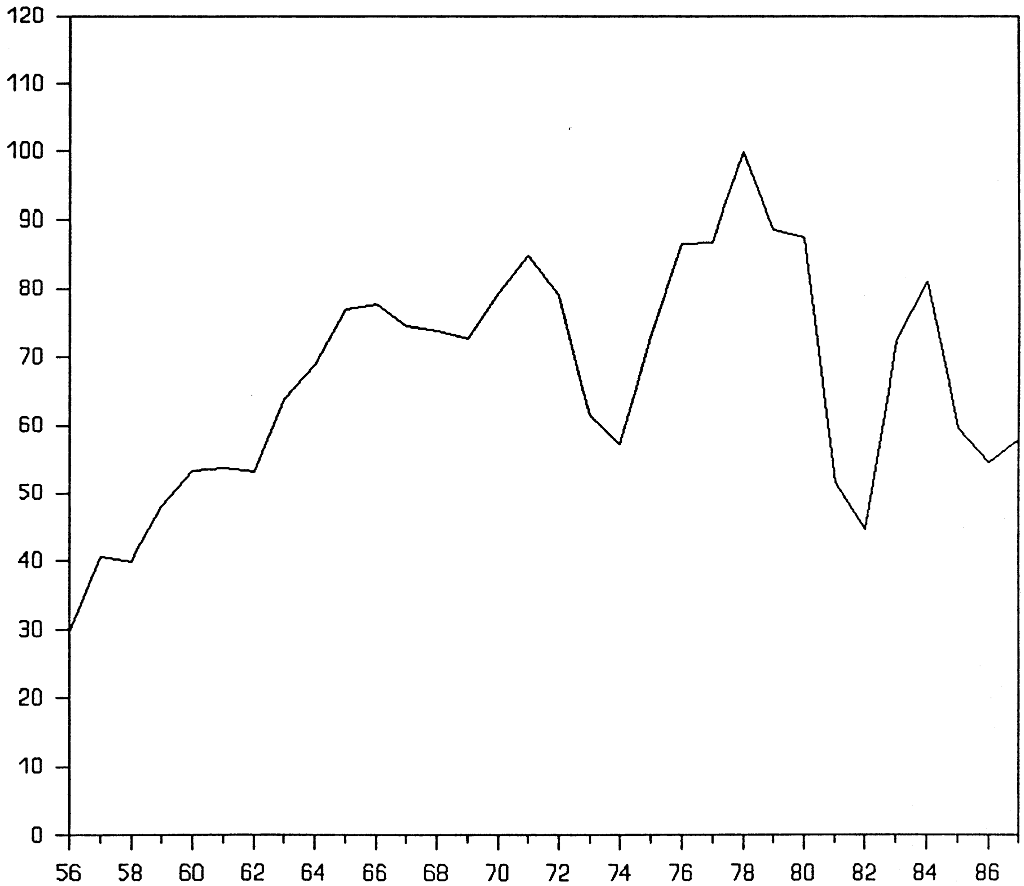


Gráfico 1.11

Sistema Bancario Nacional
Indice de los Saldos de las Colocaciones para la Ganadería
1956-1987
(Términos Reales, 1978:100)

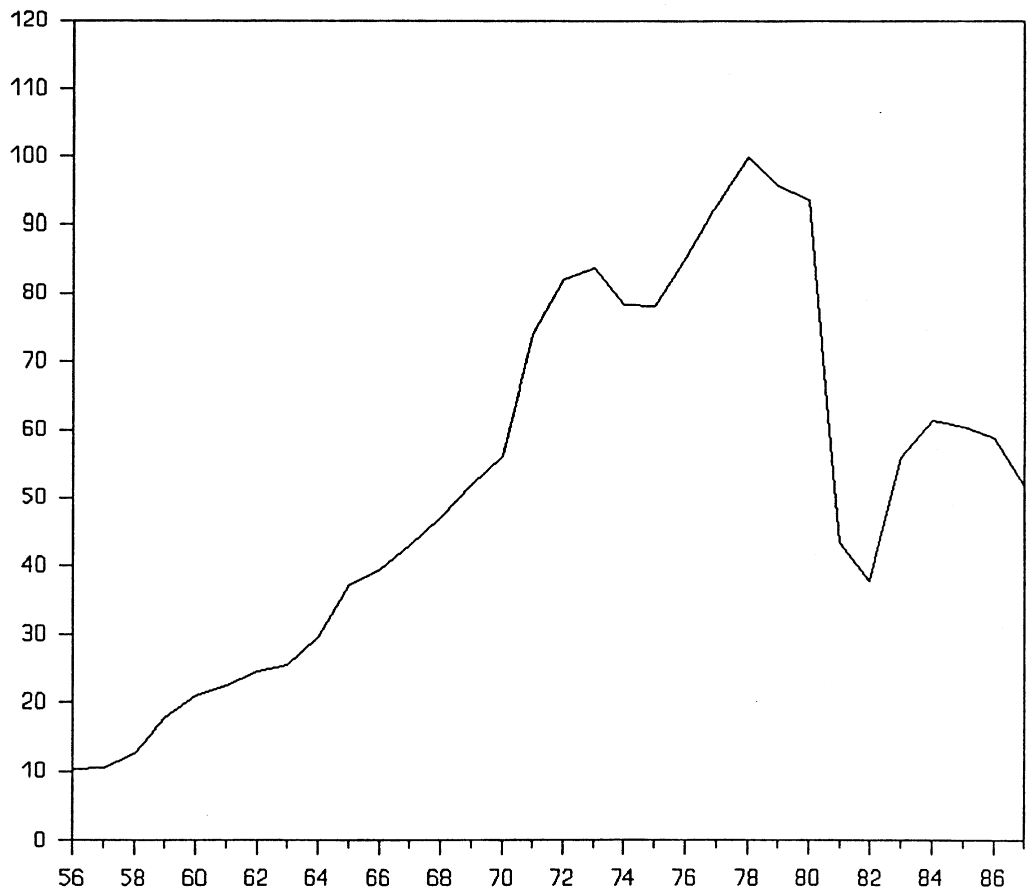


Gráfico 1.12

Sistema Bancario Nacional
Indice de los Préstamos Nuevos Totales
1969-1987
(Términos Reales, 1978:100)

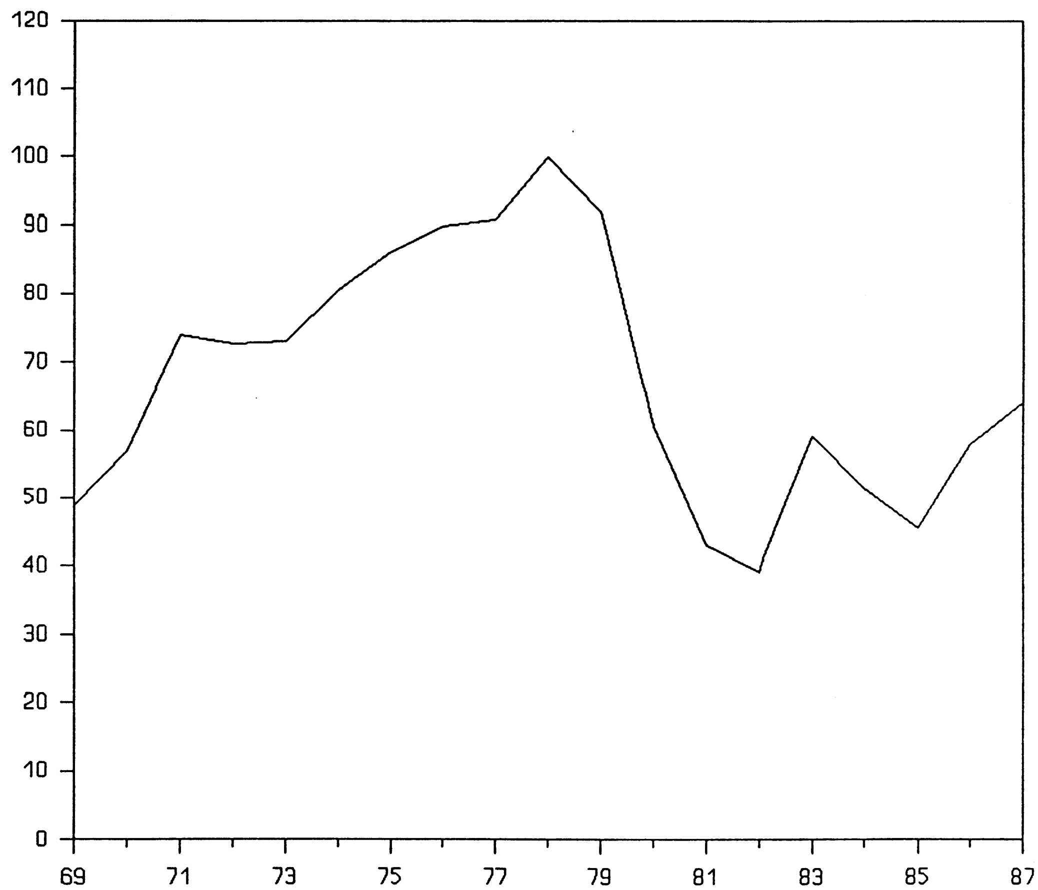


Gráfico 1.13

Sistema Bancario Nacional
Indice de los Préstamos Nuevos para la Agricultura
1969-1987
(Términos Reales, 1978:100)

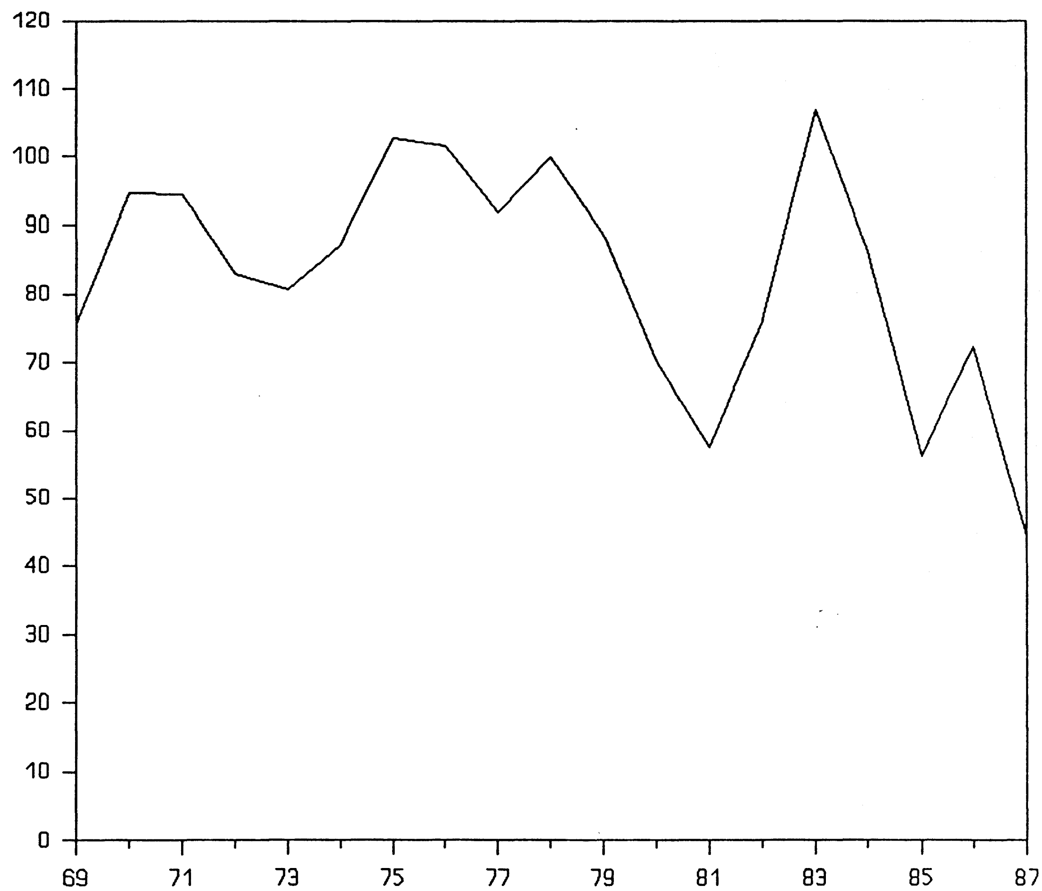


Gráfico 1.14

Sistema Bancario Nacional
Indice de los Préstamos Nuevos para la Ganadería
1969-1987
(Términos Reales, 1978:100)

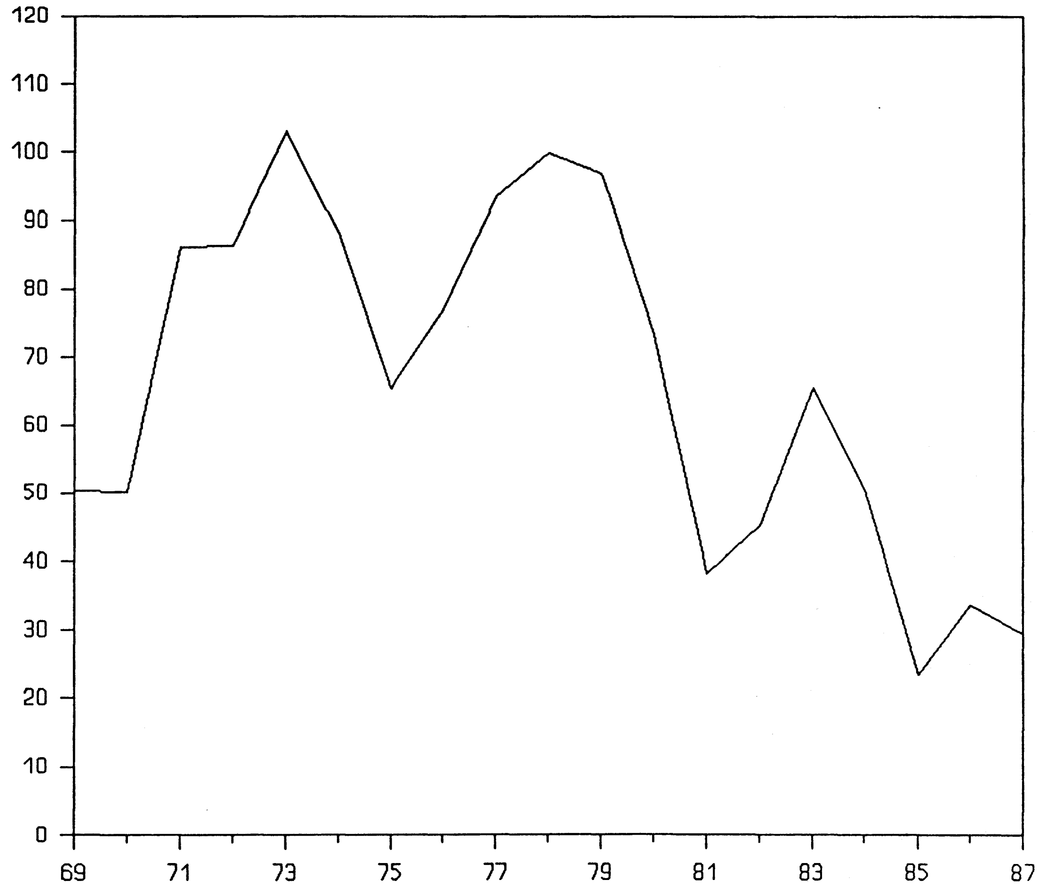


Gráfico 1.15

Sistema Bancario Nacional
Préstamos Nuevos
Participación Relativa de la Agricultura
1969-1987
(Porcentajes)

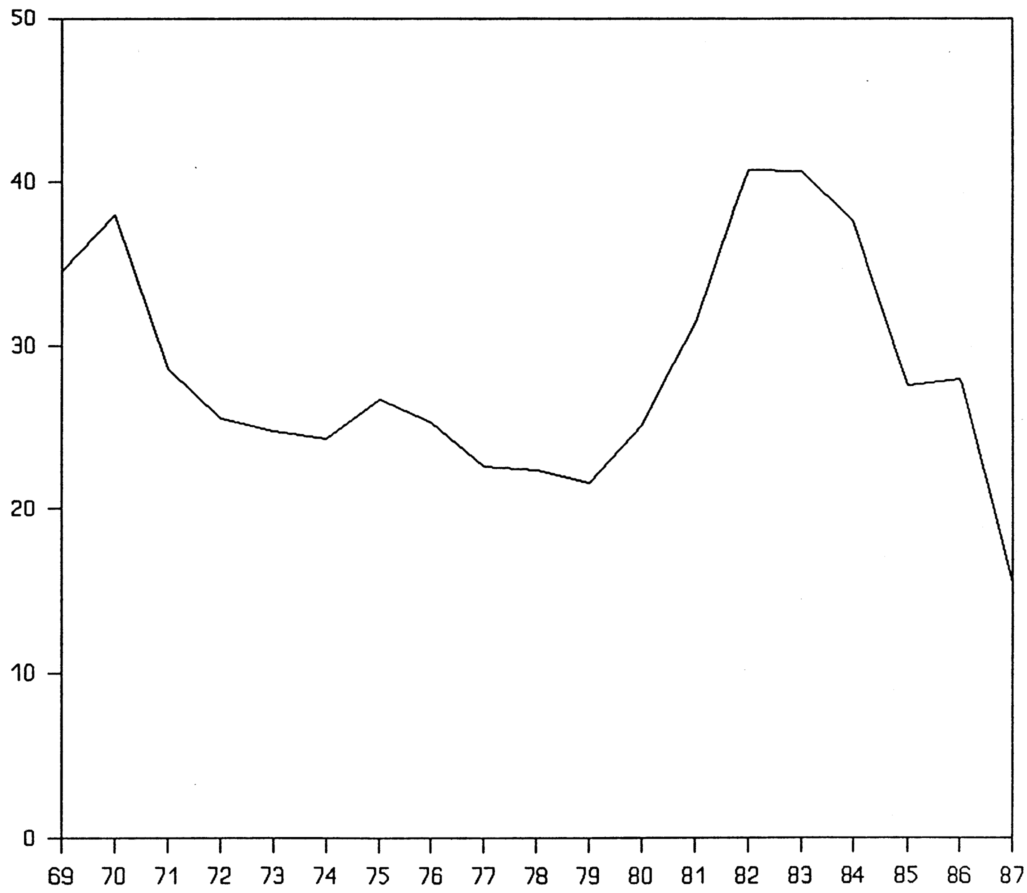


Gráfico 1.16

Sistema Bancario Nacional
Préstamos Nuevos
Participación Relativa de la Ganadería
1969-1987
(Porcentajes)